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# IMPLEMENTATION OF THE FEDERAL WATER POLLUTION CONTROL ACT

(The Municipal Construction Grants Program and the State Management Assistance Program)

## HEARINGS

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND REVIEW

OF THE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

FIRST SESSION

OCTOBER 30, 31; AND NOVEMBER 1, 1979

Printed for the use of the Committee on Public Works and Transportation

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# IMPLEMENTATION OF THE FEDERAL WATER POLLUTION CONTROL ACT (THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANTS PROGRAM AND THE STATE MANAGEMENT ASSISTANCE PROGRAM)

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**TUESDAY, OCTOBER 30, 1979**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND REVIEW,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
*Washington, D.C.*

The subcommittee met, pursuant to notice, at 10:07 a.m., in room 2253 Rayburn House Office Building, Hon. Norman Y. Mineta, chairman of the subcommittee, presiding.

Mr. MINETA. The Subcommittee on Oversight and Review of the House Committee on Public Works and Transportation will please come to order.

This week the Subcommittee on Oversight and Review continues its examination of the progress being made in cleaning up the Nation's waters. The 3 days of oversight hearings, which will begin this morning, will focus on the progress and management of the municipal wastewater treatment construction grants program being carried out under section 201 of the 1972 Federal Water Pollution Control Act.

Progress in this program during its first several years has been slow, and for many, this has been discouraging. In part this reflects the numerous problems, well documented by this subcommittee, which have plagued the construction grants program since its inception: excessive redtape, funding impoundments, uncertain and delayed appropriations, energy and material shortages, rapid inflation in the construction industry and numerous and changing Federal regulations.

However, we must also recognize that some of our disappointment may stem from overexpectation. It has been noted on more than one occasion, most recently in testimony by the EPA Administrator himself at hearings before this subcommittee, that we will not achieve the act's 1983 goal of fishable-swimmable waters, nationwide. This should come as no surprise in the face of the $163 billion of unfunded wastewater treatment needs.

But are we making sufficient progress? Since 1972, over $28 billion has been made available to this program to date, and $13 billion has already been spent. What have we purchased with this investment? And what can we expect to gain in water quality improvements over the next several years? These questions speak directly to the concerns of these 3 days of hearings. In large part,

they speak to how well and how efficiently the municipal construction grants program is being managed and what progress we can expect to make in the years ahead toward the achievement of national water cleanup goals.

To answer those questions will also require knowledge of those other factors which affect the program's rate of progress. The Federal clean water law has many requirements which must be met. The 1977 Clean Water Act Amendments, intended to provide midcourse corrections to the 1972 law, did so by adding still more requirements. Have these helped or hindered the program's progress? We look to hear from the scheduled witnesses and others about this issue.

There are also other Federal and State laws which affect this program and we seek to gain an understanding of their effects as well.

The cumulative impact of various requirements in Federal and State law have made the Federal grant-in-aid process in general, and the construction grant's program in particular, very complex.

This program relies heavily on the private sector to plan, develop, design and construct the cost-effective and energy-efficient technology needed to clean up the Nation's waters. Consequently, we must also be sensitive to how the program's performance affects the ability of scientists, engineers, equipment manufacturers, and others to perform and produce the increasingly sought after innovations we require. In this regard we look forward to today's witnesses with particular interest.

Mr. Clinger, do you have a statement that you would like to make at this point?

Mr. CLINGER. Thank you. I am sitting in for Mr. Cleveland, who has a conflict, and I do have a statement I would like to submit on his behalf.

Thank you, Mr. Chairman. I would like to congratulate you on an excellent opening statement, and I certainly want to be associated with it.

The poor rate of progress of the Construction Grants Program has been a recurring topic before this Subcommittee during the nearly seven years that have gone by since Congress passed the Federal Water Pollution Control Act Amendments of 1972. Unfortunately, the complaints about the management of the program that are now being voiced are not new. I can recall hearing similar ones back in 1974 and 1975. To a large degree, the frustrations expressed by both the public and private participants in the clean water program—the excessive red tape, the administrative delays, and the conflicting regulatory policies—these frustrations are the same kinds that are surfacing in numerous programs enacted during this past decade. In all of these programs there seems to have been a legislative disregard for the laws of science. Just because a law mandates implementation of some new level of technology does not necessarily mean that the technology can meet the hoped for standard.

During the early years of Public Law 92-500, the Construction Grants Program was characterized as being "overregulated and undermanaged." Several provisions were included in the 1977 "mid-course correction" amendments aimed specifically at remedying this condition. The Cleveland-Wright State Management Assistance Grants provision was intended to simplify the grants process by turning more and more of the day-to-day management of the construction grants program over to State agency and provide the States with financial assistance to permit them to hire the additional staff needed to do the job. I am told that 30 States have been awarded Cleveland-Wright grants and are in the process of implementing delegation. What concerns me is how long it has taken the Federal bureaucracy to get Congress message and finally let go of the program.

Nor is the complaint about erratic funding a new one to this program. For years, local communities have been somewhat reluctant to move forward because of the uncertainty as to whether there would be money available when they were ready to

use it. These uncertainties have been a product of both the Congress and the United States Environmental Protection Agency. This past year's action in the Appropriations Committee has only added to their concerns.

Yet, the Appropriations Committee was only reacting to a generalized condition that it perceived was occurring in the program: namely, a large, unobligated balance that always seemed to get obligated at the very last minute, sometimes involving questionable projects.

During this Congress, Majority Leader Wright and I have introduced a second Cleveland-Wright bill, H. R. 4113, a bill which is intended to provide a mechanism to alleviate part of the funding uncertainty. First, it would enable those States with a track record for competent, fast spending to continue to move forward with the program at the level authorized by Congress. In addition, H. R. 4113 would guarantee a predictable funding level for State management assistance grants of up to two percent of a State's authorized allotment so that the States would go forward with the long-term staffing needed to effectively manage this program. I am still hopeful this corrective measure can be enacted by this Congress, and I intend to pursue it.

Mr. CLINGER. I have two items I would like to submit for inclusion in our hearing record. One of these is a statement by our colleague, John Hammerschmidt, who is unable to come before the committee at this time because of a scheduling conflict, and without objection, I would like for it to appear in the record at this point.

Mr. MINETA. Without objection, so ordered.

[The following was received for the record:]

TESTIMONY SUBMITTED BY CONGRESSMAN JOHN PAUL HAMMERSCHMIDT

Mr. Chairman and Members of the Subcommittee, I would like to take this opportunity to share with you my thoughts concerning our nation-wide effort to clear up our country's waters.

It is almost seven years to the day since PL 92-500, the Federal Water Pollution Control Act Amendments of 1972, was established. We are also approaching the second anniversary of the enactment of the "mid-course correction" to this far-reaching 1972 law, the 1977 Clean Water Act. These legislative initiatives are two of the most ambitious environmental programs ever initiated by the Congress. The enactment of the 1972 law, over a Presidential veto, reflected the Nation's concern that America's waters were in serious trouble due in part to years of neglect, ignorance and public indifference.

The Public Works Committee, since its inception in 1946, has been trying to bring into reality an effective, properly funded program to restore and enhance the quality of our waters, and to insure their future as a lasting national asset. This Oversight Subcommittee has played a major role in the development of legislation to clean up our Nation's waters. While the subject matter of today's hearings—the construction grants program—is but one aspect of the program, it is by far the largest public works effort underway and it effects virtually every community and every citizen of our national. The costs are high—$44 billion has been authorized for this program, but the benefits are also enormous. Because of the significant Federal investment in the construction grants program, it is important that Congress keep a careful watch through the oversight process on this investment.

I think at this point we should recognize and congratulate Chairman Norm Mineta and the Ranking Minority Member, Jim Cleveland, for calling these hearings. It reflects their commitment to achieving clean water and insuring that the process currently in place is effective and is being implemented by EPA as intended by Congress.

What is discovered through these hearings may lead to legislative changes. As the Members will recall, many of the legislative initiates in the 1977 Clean Water Act originated in this Subcommittee as a result of the oversight process. As a Member of this Subcommittee during that time I recall Chairman Wright patiently listening to long and arduous hours of testimony, but I believe the changes made in 1977 were well worth the investment of time of the Members of that Subcommittee.

However I am concerned that some of the problems discovered in prior hearings are still with us today. I recall some of the testimony we received in prior hearings: delays in the program due to EPA's untimely promulgation of regulations; proliferation of requirements which created mountains of red tape; changing directives from EPA which lead to confusion on the part of applicants; sporadic and inadequate funding, creating an environment of uncertainty in the program; minimal outlays of

funds being made, although significant authorizations had been approved by Congress; escalating costs in projects due to this uncertainty, red tape, and delay. Does any of this sound familiar today? I assure you it does, and that is why I feel these hearings are extremely important.

Recently I visited with representatives of the American Consulting Engineers Council of Arkansas and several mayors from the Third District to discuss the endless delays and significant, sometimes prohibitive, cost increases they are experiencing and which are a reflection of the problems with the national program. The unanimous opinion of these individuals was that the casue of these problems is increasing regulation by EPA.

There is no question but that the Construction Grants Program is important to the State of Arkansas. Since the passage of PL 92-500 communities in my State have been allocated approximately $175 million to assist in the design and construction of wastewater treatment facilities. With the enactment of the Clean Water Act of 1977, construction grant appropriations of $4.5 billion were authorized for fiscal year 1978 and $5 billion per year for fiscal years 1979 through 1982. For a state such as Arkansas, which has limited State and local resources and serious problems in obtaining safe, effective water and sewer systems due to the geological make-up of the land, this federal participation of 75 percent of the eligible project costs is crucial and, at the on-set, the Construction Grants Program was welcomed by the people of Arkansas in their efforts to improve and enhance the state's waters.

Initially, municipal officials, consulting engineers, contractors and others involved in implementation of the program saw it as one of the best administered programs of the federal government. From its inception in 1956 through the 1960's the normal time span for placing a project under construction after filing of a grant application was approximately 18 months. One of the outstanding and frustrating examples within my own district—the Pea Ridge project—demonstrates how far we have come from that standard today. In this project, studies were commenced in early 1972, but a Step 3 grant was only offered to the City a month ago—a grant, which I might add, certain officials did not fully incorporate some of the specific problems of their water treatment needs.

Since the Arkansas Department of Pollution Control and Ecology estimates the cost for each day of delay in placing the average project in Arkansas under construction is around $556.00 this type of delay becomes significantly expensive. With 170 active projects within the State, this amounts to almost $100,000 per day, so it is easy to see why city, State and engineering officials deplore the delays created by regulatory requirements. Such delays are self-defeating in another way, also, in that even though municipalities of Arkansas have been allocated approximately $179 million through fiscal year 1979, only $118 million, or approximately 67 percent, has actually been obligated. This is a reflection of the larger problem, as well, since of the $4.2 billion appropriated in fiscal year 1979, EPA has only obligated $400 million at the end of the third quarter. Thus it is clear that the lengthy process is causing states to lose out on a share of the assistance to which they are justly entitled.

Another serious problem which was brought out in my contracts with constituents was the difficulty of doing work under the Construction Grants Program—both for the municipalities and the consulting engineers involved in these projects. The endless delays in pre-contract reviews and obtaining final approval of contract products cause shifting workload patterns for the engineering firms and, since it is not possible to hire qualified individuals on an intermittent basis, they are faced with an added financial burden. Engineering firms also report problems with delayed payments of work already performed and delay in payment of retained fees, which require them to borrow operating capital. The nonallowability of interest on borrowed funds—a cost the engineer frequently must assume in order to ensure competent staff on EPA projects—can be a serious economic burden.

There are, of course, a number of ways in which this situation might be addressed, and the American Consulting Engineers Council has made a number of specific recommendations. I would like to mention several areas of concern, however, which I specifically hope the Subcommittee will carefully consider in these oversight hearings.

The first concerns the delays which are both costly and self-defeating. Since there are nearly 100 federal laws and executive orders affecting the Construction Grants Program, it is easy to understand why it is no longer possible to review and begin construction of a project in a short period of time. In the interests of effective and economic use of federal and State funding, however, it is contingent upon us to simplify and streamline the procedure insofar as possible, and this is one area in which I feel immediate attention is required.

Another general area of concern is the problem of complex regulatory procedures which are applied to large and small communities alike, without consideration of the unique problems which small communities must deal with in their efforts to participate in this program. Forty-six percent of local assistance grants under the Clean Water Act were made to communities with a population of less than 3,500 as of July 1979, and over three-quarters of the grants made during that period were made to communities of less than 25,000 people. These smaller communities have specialized needs and difficulties, such as obtaining qualified engineering help at a cost they can afford, longer planning time, higher cost, high user fees, and problems with compliance with EPA regulations. These areas must be taken into account if a fair share of the funds is to be made available to the smaller communities.

I have long been a believer in giving the individual states the opportunity to exercise their own judgment and responsibility in areas such as this, and am proud to say that the State of Arkansas is eager to take over responsibility for administering the grants program under Section 205 from EPA. In its zeal to ensure that handing over the reins does not have a negative impact on the quality of water protection, however, EPA is tying State and local governments up in a morass of regulatory requirements which will make their task all the harder. Cooperative effort is needed, not a strait-jacket of restrictions which defeat the original intent of the law.

I hope that the investigations of this Subcommittee will enable us to achieve a better system of construction grants through EPA, and thank you for giving me the opportunity to share with you some of the concerns of the people of Arkansas.

Mr. CLINGER. The second item is a newspaper article that Congressman Don H. Clausen forwarded for my attention. It is an article that appeared in the Beaumont (Tex.) Sunday Enterprise Journal on March 25, 1979. This article details the 8 frustrating years the Trinity Bay Conservation District has spent trying to get Federal and State approval for systems for several small communities in order to comply with the Clean Water Act's mandate. This news account says best of all why these hearings are so important.

Thank you, Mr. Chairman.

Mr. MINETA. Without objection, so ordered.

[The following was received for the record:]

[From the Beaumont Sunday Enterprise-Journal, Mar. 25, 1979]

BUREAUCRACY SQUANDERS SEWER FUNDS

(By Elizabeth Cruthirds)

ANAHUAC.—Eight years ago the Trinity Bay Conservation District (TBCD) embarked on studies and plans for sewer systems in seven communities in Chambers County.

A total of $610,000 in federal and local funding has been spent and nothing has been built. District Manager Bob Brandon is frustrated, discouraged and taking an early retirement.

"The holdup is the review time by the Texas Water Quality Board and the Environmental Protection Agency," said Brandon. "These applications for grants have to go to both of them and they (the applications) lie around up there and get outdated."

The delay is caused by continuous changes in regulations, rules and operating procedures by the agencies, he said. The changes are always retroactive and this has cost the district time and money revising applications to meet requirements.

Communities slated for sewer systems are Oak Island, Double Bayou, Eminence, Hankamer, Winnie-Stowell, Anahuac and Smith Point.

When the district first submitted plans in December 1971, EPA returned them and told the district the county would have to be divided into planning areas, and the county as one block could not be handled properly. The district reconsidered its plans, divided the county into four areas and resubmitted the plans.

Texas Water Quality Board was the first agency to review plans submitted by the district. With regulations changing, the plans being shuttled back to the district for revision and resubmitted, parts of the plans have been approved up to the point of construction. However, others have not passed the Step I phase for approval. Step I covers feasibility studies.

By the time approval for construction was granted for the Anahuac area, the site for the proposed project had been declared wetlands, and the district was back at square one. Another site had to be found and work begun again.

"When we went into this, it all looked fairly simple." said Brandon. "We were told by EPA to get out there and get rid of septic tanks and get sewer systems in. We began our planning studies and finished them in December 1971. We had a set of rules to meet and as long as we did things the way they said it should have been fairly simple."

It wasn't. The application for approval that would have eventually led to federal funds for construction, was submitted in the fall of 1973. EPA then wanted the application in steps, not the entire project submitted at once.

TBCD complied, and in January 1973, submitted Sept. 1. In April 1974, the application was again returned. The objection by EPA was that it did not conform to new technical regulations.

Later that same month, TWQB agreed that while the application covered six or more facility plans, all could be considered from one application. That news encouraged the district to hurry and make revisions, so a grant could be made before June 30, 1974.

The next day, EPA notified the district it wanted the study plan resubmitted in greater detail to "reflect the terminology of the final regulations, four facility planning areas and a more detailed breakdown of the costs."

Three days later, the district learned the submission date held no significance at all because the regulations and other requirements in force at the time were retroactive all through the project.

EPA also indicated grant money would be released after April 30 except for "approved" facilities. The Chambers County projects were not approved, but "proposed."

On June 1, 1974, EPA made the first grant offer, which was accepted by the district in August to go ahead with some work. Formal authorization for additional planning work was given to engineers.

Eventually, the district requested Congressman Jack Brooks to intercede on its behalf. He did, and was able to tell the district that Feb. 11 and April 14 the EPA had approved grant increases to meet the cost rise because of inflation. TBCD found out Dec. 31.

In February 1976, the TWQB returned the district's application, Step 2, with no action. Meetings between several agencies and TBCD followed.

The outcome of one of these meetings was an agreement that TWQB would coordinate with EPA "for rapid handling of the (grant increases) request so that approval could be obtained and the work completed by May or June of 1976."

More meetings, more information, further study and public hearings followed. So did more application revision requests by the agencies.

EPA made grant offers, which TBCD accepted. More time passed and more papers were filed. A file cabinet in the corner of Brandon's office attests to the paperwork involved. It is shoulder-high and full.

The list of letters, meetings, and actions fill nine pages and eight years. Brandon is taking early retirement this month. The frustration and rule changing had a heavy bearing on his decision.

"Inflation has eaten away at estimates made for the work in 1972. Winnie-Stowell people are impatient. I get phone calls all the time. I've stopped trying to guess when we'll be able to move with this thing," said Brandon.

"The agencies keep cutting down on the eligibility amounts." This means that not as many items are covered by federal money or that not as much money is available for others.

"We could have had all these plants working one year after we got the plans drawn. We could have just sold bonds and built them ourselves. But his money was there, so why not take advantage of it? Now, it's like a poker game; we're in so deep, we can't really back out."

The amount not covered by EPA will be financed by a bond election passed in 1973.

"We may not get any money after all," said Brandon. "We're still on the priority list, but if some other town needs the money more than we do, we could be dropped. Usually, when you have Step 2 approval, you get your construction grants, and we do have that approval for parts of the county."

The conservation district was brought into the picture when the agencies realized there was no other agency in the county to handle the work. The County Commissioners Court did not have authority to do it, and it was cheaper to let the conservation district handle the job than to create another agency in the county. He also mentioned that most of the county is unincorporated.

"It's been a real fight" he said. "You just can't do what you think needs doing when you think it needs to be."

Mr. MINETA. Thank you very much, Mr. Clinger.

At this time we are pleased to have with us Mr. Jeffrey Klein, assistant vice president of Kidder, Peabody & Co.

As is customary with witnesses coming before the subcommittee, Mr. Klein, if you would stand and be sworn in?

Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. KLEIN. I do.

Mr. MINETA. Mr. Klein, if you would, go ahead and present your testimony.

## TESTIMONY OF JEFFREY A. KLEIN, ASSISTANT VICE PRESIDENT, KIDDER, PEABODY & CO., INC., NEW YORK, N.Y.

Mr. KLEIN. Mr. Chairman and members of the committee, I have been invited to testify before you today to present my thoughts and views on the Federal construction grants program. I consider it a privilege to appear before you today, and am honored that the members of the committee feel I can be of assistance in evaluating the performance of the construction grants program. My comments will endeavor to provide insight, from the perspective of an investment analyst, on how congressional, administrative, judicial, and external market factors and conditions impact the investment community's interest in the clean water program. And in particular I will discuss the private sector perspective on the equipment manufacturer's role and outlook in the construction grants program.

In order for my remarks to be placed in the proper context of these hearings, I would like the committee to be aware of my professional responsibilities and the chronology of my involvement with the program.

Kidder, Peabody is a leading investment banking and securities brokerage firm involved in the many aspects of capital formation and transactions in the worldwide financial markets. My principal activities in Kidder, Peabody's Research Department relate to fundamental market and financial research in areas including water pollution control, air pollution control, solid and liquid waste disposal, and resource recovery. Our objective is to provide guidance to our clients as to how and when to invest in these and other areas in order to make a profit. Investments are typically in the form of public or private debt instruments and equities. Most of my efforts focus on the equities, or stock market, activities. My clients principally are large institutions—banks, insurance companies, mutual funds, and other organizations making pension, trust, and private funds' investments for the purposes of capital appreciation. I specialize in several industry areas, one of which is water pollution control, and my recommendations for investment are always made within the context of alternative industry opportunities, and the overall framework of domestic and worldwide economic conditions.

My familiarity with the construction grants program dates back to 1971, when, with a previous employer, I undertook a major study to evaluate the investment opportunities in each of the major

environmental control-related markets. At that time it was generally recognized that the recently passed Clean Air Act, the pending clean water bill, and State and local as well as other Federal legislation, would probably spur substantial investment over the next 5 to 10 years to stem the tide of environmental degradation. The objective of my analysis was to find specific investment vehicles which would benefit from these trends.

In order to do this, I proceeded to define the market segments, determine trends in volume and profit potentials, identify the participants, and advise clients of the investment merit—or lack thereof. Recognize that my analysis was not from the perspective of an environmentalist, but rather from that of a capitalist. The purpose was, and still is, to identify and invest in industrial companies positioning themselves to benefit from the Nation's need to control environmental degradation or improve the environment. By providing the necessary equipment or services for which demand was projected to grow, they would justifiably earn a fair profit.

In November 1972, shortly after the passage of Public Law 92-500, I published a major analysis of the municipal and industrial wastewater control equipment markets. That analysis is included for the record. I also published analyses of air pollution control markets and solid-waste-related markets. I will restrict my remarks today to the municipal market.

A municipal sewage treatment plant is highly construction-intensive with land, labor, brick and mortar, pipes, and other plant costs of sewage collection and treatment facilities representing more than 85 percent of expenditures. Thus, the equipment component of these facilities is less than 15 percent of the treatment plant. Equipment items include products such as aerators, clarifiers, pumps, and heat treatment systems such as incinerators. The percentage of equipment would be even less of total project cost if total project costs were defined to include the costs of sanitary, storm, or combined sewers which feed into municipal systems.

Under the assumption that the principal objective of the clean water program was to clean up the Nation's waters, the focus of my analysis was principally on the portion of the system designed to do just that—the equipment which presumably would be somewhat proprietary and growing in its technical value added impact. Consequently, two of the investment criteria in my original analysis were that companies have the "necessary reputation and proven reliability of equipment" and a "broad equipment line and required engineering expertise."

The analysis in 1972 indicated a then current annual municipal wastewater equipment market size of just $150 million. The protections called for a $300 million size by 1976 and a market size of almost $800 million by 1980.

The projected 1980 market of $800 million was based on several lengthy and complex computations. However, a simplified formula which I believe can be useful to us today can be used to approximate the figure. Assuming 75 percent share Federal funding, a $5 billion annual Federal outlay, when matched by appropriate State and local funds, would indicate a $6.7 billion construction value. Subtracting the percentage applicable to interceptors or other non-equipment-oriented portions of the system such as pipes—which

was estimated to decline by 24 percent by the year 1980—leaves us with a balance of a little over $5 billion applicable to treatment plant construction. Applying the equipment percentage of a little over 15 percent would result in the 1980 equipment market projection of about $800 million.

Despite the many variables involved in the analysis—starting with the level of congressional authorizations, the impoundment issues, levels of obligations and outlays, exogenous market factors and the like—it appeared that the overall analysis—which was periodically updated, was fairly accurate through 1977. In fact, in the March 1979 issue of the Department of Commerce's Construction Review, a survey confirmed our early market estimates for the year 1977. My estimate of a 1977 market of $375 million corresponds quite closely to the Department of Commerce estimate of $355 million.

However, gentlemen, the market outlook for 1978-80 has deteriorated dramatically from our earlier projections. In contrast to the earlier forecast of a 1980 market of $800 million, it now appears a figure of no more than $500 million is likely. Using the simplified formula applied earlier, a $4 billion Federal funding figure translates into a $5.2 billion overall construction value. Subtracting the percentage applicable to sewers and other non-treatment-plant items of 35 percent—versus the earlier estimate of less than 25 percent—leaves us with a balance of about $3.4 billion in projected plant—versus the earlier estimate of over $5 billion. Applying the equipment percentage of about 15 percent—it could be somewhat less than that—results in the revised 1980 equipment market projection of $500 million.

The variance between the earlier and the revised forecast has significant implications. I will review several of the possible explanations for this variance and offer some suggestions and recommendations later. But I urge the committee to recognize the following three implications which appear from my perspective:

First, the ultimate success of the sewage treatment construction grant program in achieving its designated goals must be questioned.

Second, the rate of progress of the program is clearly different from that anticipated.

Third, there is growing uncertainty as to the profitability of this market for equipment suppliers. Although the market is still projected to increase in size, the political budget pressures, bureaucratic complexities, and exogenous market factors have made it unusually difficult for manufacturers to properly forecast capital and manpower needs. Furthermore, the intensively competitive market conditions continue to disfavor the more proprietary characteristics of the large, more sophisticated, equipment suppliers.

The committee is well aware of the facts and figures involved in the construction grants program. Let me review just a few. We know the original needs survey indicated a requirement of less than $24 billion of total construction value. We realize the latest needs survey indicates well over $100 billion in required expenditures. We know that, excluding the fiscal 1980 authorization, the cumulative authorized and appropriated funds from Public Law 92-500 and subsequent amendments total $28.19 billion. Of this

amount approximately $24.5 billion was obligated by the fiscal year ending 1979, and that approximately $13 billion was actually expended. Furthermore, of the $13 billion spent, less than $2.5 billion of these moneys represented fully completed sewage treatment plant projects.

And now for what might be the single most telling statistic—it is estimated that almost half of the plants in operation today fail to meet design specifications. That should tell us something is amiss.

Fortunately, we may still be in the relatively early stages of the construction grants program—a program which might now spread over 20 years or more in contrast to the somewhat naive early projections of 5 to 10 years. Of the almost 6,000 step 3 grants for obligations made since the inception of the program, less than 1,500 have been completed, that is 25 percent. And these completed projects were weighted with relatively smaller plants, representing less than 10 percent of the total dollars of the step 3 grant obligations. However, we do have a much larger percentage than that in the works today.

I would like to think that reappraisal, such as today's hearings, may serve to improve the direction and success of the program, by means of improving design, construction, and operation of municipal sewage treatment plants.

As it stands today, however, from the investment perspective, the near-term outlook is not good. The general competitive state of the business, in no small part affected by the Federal program bidding procedure, is leaving little room for adequate reward for research and development and improving product and system design. Metal benders with relatively low overhead are at a distinct advantage in the current market environment, under the so-called low-cost emphasis. Little economic incentives exist to emphasize or incorporate into plant design energy efficiency, improved operations and maintenance modifications, and overall cost effectiveness over a 20-year life cycle of a typical treatment works plant. If we continue at the present rate, I would anticipate significant reevaluation by major equipment suppliers of their participation in this business. Companies with the "necessary reputation and proven reliability of equipment" and those with "the required engineering expertise" may be forced out of the market because of their inability to earn a fair return on their stockholders' investment. Research and development efforts could likely be curtailed and the prospects of meeting the Nation's clean water goals could be seriously jeopardized.

Gentlemen, I am not attempting to make myself up to be a legislative expert, or a congressional expert, but merely an outside examiner observing the adverse conditions that affect the market that I have been analyzing.

Let me make eight points.

One, the program needs stability and predictability.

Two, congressional authorizations must be stabilized and, within that context, the life cycle and goals of the program must be made clear. Is this to be a 5-year, 10-year, or 20-year program, and with what objectives? Is it to just build plants, or to build plants that work? Is it to provide employment and local assistance, or is it to help reduce water pollution?

Three, in defining the scope and cost of the program, inflation cannot be ignored in the grants program, when it takes 3 to 7 years to design, build, and start up a plant. I will spare us all the details of what inflation is running at today.

Four, when I refer to program predictability, I am not referring to just the level of authorizations or appropriations. As we have discussed, the percentage devoted to equipment must also be clarified and made predictable.

Five, methods must be found to reduce redtape and expedite processing of grant applications.

Six, procedures must be implemented to include life cycle cost in bid evaluation. This would permit proper emphasis on energy and maintenance costs.

Seven, consideration should be given to restoration of consulting engineers' professional judgment role, and allowing qualification of proprietary product advantages in bidding procedures, should be considered.

Eight, speedup of payment procedures, such as progress payments, bond substitution for retention funds, and step 3 change orders, must be implemented in order for companies to properly assess working capital needs.

If these eight points could be successfully addressed, then I would anticipate substantial improvement in the prospects of the program. I will backtrack now for a few moments and provide some views on why the program did not function as expected.

Factors that have contributed to the problems of the program include:

One, too frequent changes in procedures of program administration.

Two, I think it was naive for anyone at the time that the original bill was passed to expect the total $18 billion to be allocated, appropriated, and obligated within a 3-year period.

So, on the one hand, the impoundment of $9 billion in funds did not materially affect the program startupwise, but I think it had an adverse psychological effect in terms of lack of the commitment that it may have implied.

Three, recession in the construction industry in 1974-75 which fostered competition at the local construction level, leading to numerous bid protests and lawsuits.

Four, difficulties of financing at the local level. This is likely to reappear as a problem in 1980. My statistics for the last 9 months show that local financing is down approximately 20 percent, and I expect in the fourth quarter of the calendar year this figure will deteriorate further.

What, by the way, is the status of the loan guarantee amendment to the Federal Water Pollution Control Act, S. 3894, signed by President Ford in 1976? This could help alleviate this problem.

Five, the Public Works Employment Act of 1976 led some municipalities to switch to the 100 percent funding of the public works program from the 75 percent of the construction grants program. Municipalities submitted applications for over 2,000 projects with a total value of $20 billion, when only $405 million of the Public Works Employment Act funds were dedicated to sewage treatment and related construction projects. These 2,000 applications were

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switched out of the construction grants program, and then once found that they could not be covered under the Public Works Employment Act, were then resubmitted to the construction grants program.

Six, restrictions on sole source procurement, section 204(a)(6) of Public Law 92-500, which led to restrictions on the consulting engineers' ability to specify proprietary equipment.

Seven, the timing of annual authorizations by Congress and program volatility resulting from fiscal yearend efforts to "push the funds out the door." I recall President Ford's recommendation, just prior to his departure from office, that the program be funded for 10 years, at an annual level of $5 billion. Appropriations for fiscal years since then have been $1 billion in 1977, $4.5 billion in 1978, $4.2 billion in 1979, and $3.4 billion in 1980. And that is before adjustment for inflation. It would appear that the capital needs of the program are growing, but that the program funding is in fact shrinking.

Eight, the changing percentage of dollars between interceptors or other nontreatment plant items such as pipe projects and treatment plant which was further compounded by section 216 of the 1977 amendments.

Nine, inflation and escalation of costs dictating redesign by consulting engineers.

Ten, occasional environmental lawsuits.

Eleven, changes in the program made by the 1977 amendments, which although well intentioned, have served to compound administrative difficulties.

Frankly, gentlemen, analysis of the contruction grants program during the first several years was intriguing. It was a challenge to uncover the year-by-year explanations and rationale for the program's variance from projections—be it political, administrative, or marketplace factors. Each point was very logical in its time and place.

However, after 8 years, it has become clear that the expectation is now to look for something new, or a repeat of something old, to cause dislocations. The confidence factor has declined too far and the predictability is too low. That is not the way to run a business, and under these circumstances, it may not be a market sufficiently attractive in which to participate.

Mr. Chairman and members of the Committee, thank you for the opportunity to present my views. I will also appreciate your including in the record the publications I appended to my statement.

Mr. MINETA. Mr. Klein, thank you very much for a fine statement on the analysis of the construction grants program from an investment perspective. The appended materials will, without objection, be included at this point.

The Research Department

Kidder, Peabody & Co.
INCORPORATED

August 14, 1979

# Environmental Control Industry

## MUNICIPAL WASTEWATER EQUIPMENT MARKET REVIEW

- Step 3 Funding Logjam for construction starts broken, with starts for calendar 1978 ahead 22% and, for four months of 1979, by another 5% ... backlog of approved projects (those more than six months' old) awaiting construction reduced to less than 300 projects with value of $1.1 billion, compared with peak of over 700 projects with value close to $3 billion.
- Sewage treatment Construction Grants Program outlays for year to date running 28% above year-ago level ... obligations for year to date running at double the depressed prior-year level.
- Despite their significant improvement over one year ago, new obligations proceeding at less than desirable pace due to series of bureaucratic and political issues ... Administrative fiscal 1980 budget recommendation of $3.8 billion for Construction Grants Program well below the $5.0 billion authorized by Congress in 1977.
- Government regulations and bidding procedures continue to foster competitiveness and discourage proprietary product utilization, resulting in adverse impact on profitability of major equipment suppliers.
- While near-term-activity level encouraging, sustainability of improved order trend and profitability prospects unclear; earnings outlook for major equipment manufacturers, although not likely to deteriorate further, is consequently not likely to show gains as high as indicated by projected rate of outlays.
- Reappraisal of Construction Grants Program under way in Washington ... possibility exists for changes to encourage proprietary products and, hence, improve profit outlook for major suppliers over next 12 to 18 months.

*Industry Follow-Up* _____

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*Additional information on the securities mentioned is available.*



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## SUMMARY

Mixed trends are being exhibited in the components we use to analyze the municipal wastewater equipment market. In the 1978 Federal fiscal year, ended September, both obligations and outlays of the federally funded Construction Grants Program fell short of our expectations. Obligations totaled $2.4 billion, compared with our earlier estimate of $3 billion-plus, and outlays totaled $2.9 billion, which was below our original $3.2 billion estimate. In the 1977 fiscal year, outlays were $2.7 billion. Thus, although the pace of outlays continued to increase, it was at a less-than-projected rate. For the eight months (through May 1979) of the current fiscal year however, conditions have improved dramatically; through May, obligations of $1.2 billion were more than twice the year-ago depressed level, and outlays of $2.3 billion were 28% above the year-ago level.

The disappointing experience during the 1976-78 period now seems to be in the process of reversal. During that time, funds were obligated and projects scheduled to begin, although construction starts for municipal wastewater treatment plants did not accelerate as planned for a variety of reasons. In calendar 1976 and 1977 sewage treatment plant construction starts declined 7% and then increased 9%. In 1978, construction starts accelerated at a 22% rate. As construction of these plants proceeds, we expect outlays to rise accordingly, and to accelerate as the program gains momentum. Unfortunately, just when the program seemed to be picking up speed, additional regulatory changes, although well-intentioned, have interfered, creating further complications—and delays—for new obligations. Thus, while the near-term activity level is definitely encouraging, the sustainability of improved order trends and profitability prospects remains unclear.

Funding of the Construction Grants Program is summarized as follows: Including the fiscal 1979 authorization, cumulative authorized and appropriated funds from Public Law 92-500 and subsequent amendments total $28.18 billion. Of this amount, $20.6 billion had been obligated at fiscal year-end 1978, and $9.3 billion had actually been expended.

In the first eight months of fiscal 1979 (through May), an additional $1.2 billion has been obligated and $2.2 billion has been expended. Thus, as of May 1979, cumulative obligations are $21.8 billion and outlays now total $11.5 billion. The indicated backlog of obligated but unexpended funds is now $10.3 billion. When appropriated—but not yet obligated—funds of $6.4 billion are added, the total amount of funds available for expenditure is $16.7 billion. Furthermore, of the $11.5 billion total funds spent, only $1.9 billion of the monies represented fully completed sewage treatment plant projects. Thus, substantial growth in the outlay of funds (of which approximately 15% represents the equipment market) is implied, as the total outlay of funds continues to lag far behind the obligations.

Debate associated with regulatory issues, fiscal 1980 and 1981 budget constraints, and program implementation procedures continues to raise uncertainties about 1) the ultimate success of the sewage treatment construction program in achieving its designated goals, 2) the rate of progress of the program, and 3) most important, the profitability of projects for equipment suppliers. In summary, although municipal wastewater market conditions are projected to improve, the bureaucratic complexities and political budget pressures indicate that it will be at a lesser rate than is indicated by the dramatic increase in outlays. Significantly, the intensely competitive market conditions continue to disfavor the more proprietary characteristics of the larger, more sophisticated equipment suppliers. Reassessment of these issues and their implications is now under way in Washington. Reinstatement of the consulting engineers' pre-qualification procedures and of certain bidding practices, both of which serve to emphasize quality, performance reliability, and life-cycle economics over initial low cost, should combine to improve the market outlook over the next 12 to 18 months.

In order to provide a clear perspective on these issues as they relate to the prospects for the municipal wastewater equipment market, this report analyzes selected legislative actions in connection with the 1977 Clean Water Act Amendments, assesses the implications of the Federal 1980 budget, and provides a detailed summary of the current status of the obligations and outlays, and the construction start trends in the industry (for a summary of provisions of the Clean Water Act of 1977, refer to our "Environmental Control Industry" *Follow-Up* of April 28, 1978). This report also reviews several of the issues concerning the profitability outlook for the major equipment manufacturers and focuses on several of the topics included in the reappraisal of the program now under way in Washington.

## ANALYSIS OF LEGISLATIVE ACTIONS AND THEIR IMPLICATIONS CONCERNING FEDERAL FUNDING OF MUNICIPAL WASTEWATER TREATMENT PLANTS

When Congress debated the 1972 Amendments to the Federal Water Pollution Control Act, mid-course corrections were promised that were fulfilled in the Clean Water Act of 1977. More than 70 changes were made in the existing law. The 1977 Act reiterated earlier legislative objectives of restoring and maintaining the chemical, physical, and biological integrity of U.S. waters. The goal remains, in essence, to eliminate by 1985 the discharge of

pollutants into those waters and, in the interim, to attain a water quality suitable to support fish, shellfish, and wildlife, as well as allow human recreation in and on the water. In preparation for passage of the 1977 Act, analysis of the progress made in cleaning up the nation's waters as a result of the 1972 Amendments showed mixed successes. The programs aimed at industrial compliance fared relatively well: by July 1977, between 80% and 90% of U.S. industries had met the deadline for use of the best practicable technology. However, programs affecting municipalities faltered because of uncertain funding and excessive red tape. Fewer than one-third of all U.S. municipalities met the July 1, 1977 deadline for secondary treatment. Even more disheartening was the analysis showing that over 50% of all wastewater treatment plants in operation failed to meet design specifications. Furthermore, communities were beginning to realize what a sewage treatment system really costs—in terms of operation, maintenance, energy, and other indirect expenses.

In response to the disappointing results of the Municipal Sewage Treatment Program, the 1977 Clean Water Act provided for significant changes in the Construction Grants Program as well as substantial additional funds in order to reverse the disappointing trend of the program in the 1972-77 period. Several of these changes are described below. These were all conceived with good intentions on the part of Congress, the Administration, and the EPA. Unfortunately, even a slight shift in emphasis—to say nothing of a more specific program change—tends to create more bureaucratic snarls than anything else could, when such a massive federally funded program as this is involved. In other words, program momentum, which takes so long to build, is all too easily slowed by bureaucratic changes and the machinery needed to implement these changes. Consequently, while the 1977 Act was well-intentioned, it seems, so far, to have impaired rather than improved implementation of the program to fund construction of municipal wastewater treatment plants. The funding mechanism and progress of the program to date is discussed in later sections of this report.

To deal with the problem of municipal noncompliance, resulting largely from the unavailability of sufficient Federal matching funds, communities were given, on a case-by-case basis, an extension of time to achieve the required effluent limitations until construction was completed, but not later than July 1, 1983. No relief is available for failure to meet the standards when improper operation or maintenance is the cause. To provide financial assistance to continue the municipal clean-up effort, the 1977 Act authorized $24.5 billion for fiscal years 1978 to 1982.

The 1977 Clean Water Act prohibits the EPA from making municipal construction grants unless an applicant demonstrates that he has studied and evaluated "innovative and alternative wastewater treatment processes and techniques which provide for the reclamation and reuse of water, otherwise eliminate the discharge of pollutants, and utilize recycling techniques, land treatment, new or improved methods of waste treatment management for municipal and industrial waste ... and the confined disposal of pollutants, so that pollutants will not migrate to cause water or other environmental pollution." (Section 201 [G] [5].) It is this section of the 1977 Act that has created undreamed-of amounts of red tape and duplication of effort in reassessing grant applications and approvals.

Several changes in the Construction Grants Program were designed to give greater resources, policy initiative, and flexibility to state and local governments, on which the EPA increasingly relies to administer this program. For example, states may now receive up to 2% of their construction grant allotment to manage aspects of the program. Again, this is a well-intentioned and probably, over time, a well-conceived approach, but in the interim the prospect of program changes serves to increase near-term red tape and has the effect of creating rather than solving problems.

Another area of program changes leading to increasing complexity involves the area-wide Treatment Management Planning Program (Section 208), whereby 100% Federal assistance over a two-year period can be provided for selected projects. Thus, the switching of some projects from a 75% to a 100% Federal funding application, and then back to 75% if it did not apply, creates additional confusion. All these developments must, however, be seen in proper perspective. We have taken these items out of context in order to illustrate some of the developing complexities in this enormous program. We do not mean to unduly criticize or denounce the program for its partial failures. In fact, based on the evidence unfolded in this report, the program appears to have had a far greater degree of success, on balance, than failure.

## FEDERAL 1980 BUDGET IMPLICATIONS

The Federal budget for fiscal year 1980 contains some interesting comments regarding the outlook for spending on environmental controls, particularly in regard to Construction Grants Program funding. The Special Budget Analysis states that "intelligent stewardship of America's natural resources and environment continues to be a prime responsibility of government at all levels. The resources held in common—our air, water and land—must be conserved and enhanced by future generations of Americans, and each year's federal budget must

provide for those activities. In this, as in other areas of budgetary responsibility, however, many activities must be limited or deferred in years of fiscal constraints." The 1980 year is deemed to be one of "attempted" fiscal constraints, in conjunction with our national economic goals.

The 1980 Federal budget reflects increased emphasis on the protection of human health from the hazardous effects of toxic substances and other pollutants, as enunciated in the following excerpt: "In order to provide the resources for these expanded efforts, some activities will have to be delayed. Without reducing the level of long-term commitments, large-scale efforts such as grants for sewage treatment plants construction must be limited to levels of spending that can be effectively managed under the complex inter-governmental mechanisms involved."

To help meet national needs for using and preserving our resources and improving the environment, the budget proposes that $11.5 billion be spent in 1980. This compares with $11.2 billion in 1979 and $10.9 billion in 1978. The budget recommendations for 1980 give specific emphasis, among other things, to materially strengthening the scientific data base on the health effects of environmental pollution; substantially increasing funding and personnel for the control of toxic substances; and increasing grants to states to support the control of hazardous wastes as well as of air and drinking water pollutants. In order to achieve these goals, significant reductions in budget authority below 1979 levels are proposed for the land and water conservation fund, the agricultural conservation fund, sewage treatment plant construction grants, and for construction of facilities on Federal and Indian lands.

The Administration's budget proposals for fiscal 1980 in regard to budget authority for using and preserving national resources and improving the environment are included in Table 1. Table 2 presents similar data on proposals for fiscal 1980 budget outlays. The request for budget authority in fiscal 1980 of $3.8 billion for the Construction Grants Program (Table 1) compares with $4.2 billion in 1979 and $4.5 billion in 1978. Note also the fiscal 1980 budget's projected recommendations of $4.0 billion each in fiscal 1981 and 1982. The Budget Analysis notes that this $3.8 billion for the program in 1980, when combined with funds available from prior years, is estimated to make over $8.3 billion available to the states for obligation in fiscal 1980. In the proposal, obligations of the Construction Grants Program are estimated to approximate $3.4 billion in fiscal 1979 and $3.6 billion in 1980. The Special Analysis also reiterates the Administration's $45 billion long-term funding commitment for this program and, also, that since a large number of projects will be moving into the final construction stage after 1980, outlays for this program should increase significantly. As set forth in Table 2, the budget projections for outlays are shown to be $3.1 billion in fiscal 1979 (compared with nearly $3.2 billion in 1978), and to increase to $3.6 billion, $3.8 billion, and $4.2 billion in respective fiscal years 1980-82.

## SUMMARY REVIEW OF CONSTRUCTION GRANTS PROGRAM FUNDING ACTIONS

The federally funded Sewage Construction Grants Program is one of the largest public works programs undertaken in the history of the United States. The 75% Federal funding share for constructing municipal sewage treatment plants is providing the major thrust for growth of the municipal

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**Table 1**
**Administrative U.S. Budget Proposals for Fiscal 1980: Using and Preserving Natural Resources and Improving the Environment—Budget Authority**
*(Dollars in millions)*

| | 1979(A) | 1979(E) | 1980(E) | 1981(E) | 1982(E) |
|---|---|---|---|---|---|
| Pollution control and abatement | | | | | |
| Sewage treatment plant construction grants | $4,500 | $4,200(A) | $3,800 | $4,000 | $4,000 |
| Regulatory and research programs and other | 870 | 1,112 | 1,205 | 1,318 | 1,313 |
| Subtotal | 5,370 | 5,312 | 5,105 | 5,318 | 5,313 |
| Water resources | | | | | |
| Conservation and land management | 3,818 | 3,531 | 4,113 | 4,458 | 4,312 |
| Recreational resources | 2,480 | 2,180 | 1,877 | 1,833 | 1,958 |
| Other natural resources | 1,825 | 1,873 | 1,782 | 2,022 | 2,151 |
| Adjustments | 1,212 | 1,207 | 1,370 | 1,340 | 1,320 |
| Total Budget authority | (1,007) | (1,253) | (1,330) | (1,262) | (1,418) |
| | $13,883 | $12,870 | $12,870 | $13,088 | $13,845 |

Source: The Budget of the United States Government, fiscal year 1980.
(A) Actual.
(E) Estimated.

wastewater equipment market. The 1978 Needs Survey related to the program indicates that approximately $80 billion will be required to complete the construction of sewage treatment plants in the United States in order to meet the goals of the 1972 and 1977 legislation. The 75% Federal share indicates a Federal commitment of approximately $60 billion. To date, approximately one-third of these funds has been made available and is committed to projects, and only approximately one-sixth of the total anticipated Federal funds has actually been expended.

The latest appropriation (in September 1978) brings to $28.18 billion the total of funds authorized and appropriated for the Federal portion of sewage treatment plant construction, of which by September 30, 1978, only $9.3 billion had been spent. In essence, this closing of the gap between the amount available for spending and the amount so far spent, which is analyzed in this report, sets the stage for growth in the municipal wastewater equipment market. At this point, therefore, it would be helpful to put the funding actions into proper historical perspective.

The key terminology in the process of funds' utilization includes authorization, appropriation, allocation, obligation, and outlay. Funds are first authorized by Congress. They then usually have to be appropriated—i.e., specifically incorporated into the budget process, although the 1972 Amendments to the Federal Water Pollution Control Act both authorized and appropriated funds. Otherwise, all funds authorized are not necessarily appropriated.

Once appropriated by Congress and approved by the President, the EPA next internally allocates the available funds to the various states on the basis of population, income, and "need." These funds are subsequently obligated to individual projects as applications for particular municipal plants are received by the EPA from the states. In general, if a state does not use its total allocated portion of the funds within 12 months after the end of the fiscal year, the unusued portion is reallocated among the remaining states. Thus, theoretically, a state has up to 24 months to use its allocated funds. Exceptions to this general rule are provided for, however, as with the Public Works Employment Act of 1976 (funds available until expended) and in the case of the supplemental fiscal 1977 funds (available for three years before reallotment).

Actual disbursements, or outlays, normally lag obligations by several years because of the time required for the letting of bids and for construction. A substantial time lapse thus exists between Congressional approval of spending programs and the actual flow of money.

This delay can be prolonged by budget decisions made within the Government. Until passage of the Congressional Budget Act (1976), the Office of Management and Budget (OMB) under the President would frequently "impound" (i.e., refuse to allow an agency to spend) funds that Congress had appropriated. Up to $9 billion in municipal treatment grants were withheld in this way during the 1973-75 fiscal years. Following the Supreme Court decision in February 1975 that such impoundments were illegal, President Ford released the funds. The new Congressional Budget Act now requires the Executive Branch to receive Congressional approval for any future impoundments.

Table 3 data highlight the history of legislative, administrative, and judicial actions related to the

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**Table 2**
**Administrative U.S. Budget Proposals for Fiscal 1980: Using and Preserving Natural Resources and Improving the Environment—Outlays**
*(Dollars in millions)*

| | 1978(A) | 1979(E) | 1980(E) | 1981(E) | 1982(E) |
|---|---|---|---|---|---|
| Pollution control and abatement | | | | | |
| Sewage treatment plant construction grants | $3,197 | $3,100 | $3,660 | $3,800 | $4,200 |
| Regulatory and research programs and other | 778 | 883 | 1,874 | 1,257 | 1,278 |
| Subtotal | 3,964 | 4,883 | 4,673 | 5,058 | 5,478 |
| Water resources | 3,400 | 3,800 | 3,670 | 4,188 | 4,015 |
| Conservation and land management | 1,884 | 2,014 | 1,718 | 1,795 | 1,885 |
| Recreational resources | 1,439 | 1,480 | 1,384 | 1,729 | 1,875 |
| Other natural resources | 1,157 | 1,303 | 1,342 | 1,329 | 1,321 |
| Adjustments | (1,087) | (1,252) | (1,339) | (1,362) | (1,418) |
| Total budget outlays | $10,925 | $11,287 | $11,458 | $12,625 | $13,255 |

Source: The Budget of the United States Government, fiscal year 1980.
(A) Actual.
(E) Estimated.

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**Table 3**
**History of Legislative, Administrative, and Judicial Actions Related to Construction Grants Funds**

| Date | Event | Total Funds Impounded | Total Authorized Funds | Total Authorized and Appropriated Funds |
|---|---|---|---|---|
| Bill passed August 1972 | Congress overrides Nixon's veto of 1972 Clean Water Act, authorizing $18 billion for sewage treatment plants and collection systems: $6 billion, $8 billion, and $7 billion in fiscal years 1973, 1974, and 1975, respectively. | None | $18 billion | $18 billion |
| NIXON ADMINISTRATION ACTIONS | | | | |
| Fiscal 1973 | Releases $2 billion for allocation to states by EPA; $3 billion impounded. | $3 billion | $18 billion | $18 billion |
| Fiscal 1974 | Releases $3 billion for allocation to states by EPA; $3 billion impounded. | $6 billion | $18 billion | $18 billion |
| Fiscal 1975 | Releases $4 billion for allocation to states by EPA; $3 billion impounded. | $9 billion | $18 billion | $18 billion |
| COURT DECISIONS | | | | |
| May 1973 | U.S. District Court of Washington D.C., in a suit brought by the City of New York, rules the President did not have the authority to impound funds for waste treatment facilities. (This was one of eight similar decisions in 1973-74.) | None | $18 billion | $18 billion |
| April 1974 | Supreme Court appears to hear the Federal Government's appeals of several court cases involving the impoundment of sewage treatment funds. | None | $18 billion | $18 billion |
| February 1975 | Supreme Court upholds lower courts' rulings. (Train vs. City of New York and Train vs. Campaign Clean Water.) | None | $18 billion | $18 billion |
| FORD ADMINISTRATION ACTIONS | | | | |
| January 1975 | Releases $4 billion of previously impounded funds for use in fiscal 1976 with implication that remaining $6 billion of impounded funds would be made available for fiscal 1977. | $5 billion | $18 billion | $18 billion |
| February 1975 | Releasing $5 billion of impounded funds officially released for fiscal 1976 in response to Supreme Court ruling. | None | $18 billion | $18 billion |
| CONGRESSIONAL ACTIONS | | | | |
| July 1976 | Public Works Employment Act of 1976, of which $700 million was authorized and $400 million was appropriated for Construction Grants Program. | None | $18.70 billion | $18.40 billion |
| May 1977 | $1 billion supplemental funding appropriated for fiscal 1977. | None | $18.70 billion | $19.40 billion |
| December 1977 | 1977 Clean Water Act Amendments passed by Congress, including Construction Grants Program authorizations (but not appropriations) of $4.5 billion for fiscal 1978 and $5.0 billion each for fiscal years 1979-81, as well as authorization of supplemental funding already appropriated for fiscal 1977. | None | $44.20 billion | $19.40 billion |
| March 1978 | Supplemental Appropriation Bill, which included fiscal 1978 funds of $4.5 billion, passed by Congress and signed by President Carter. | None | $44.20 billion | $23.90 billion |
| September 1979 | Congressional appropriations for fiscal 1979 of $4.2 billion. | ($400 millions) | $44.20 billion | $28.10 billion |
| January 1979 | Administration recommends $3.8 billion for fiscal 1980 appropriations. | | | |

(a) Not an official impoundment as such, but rather the difference between the amount authorized by Congress and then appropriated, in accordance with the 1979 Congressional Budget Act Procedures.

Construction Grants Program funding. The chronology begins with the August 1972 passage of 1972 Federal Water Pollution Control Amendments, which included the authorization and appropriation of $18 billion of funds. By fiscal 1975 actions by the Nixon Administration had effectively impounded a total of $9 billion, essentially halving the impact of the 1972 Clean Water Act. As a result of lawsuits opposing this practice, significant judicial actions ensued, including: the May 1973 ruling by the U.S. District Court of Washington, D.C., that the President did not have the authority to impound funds; the April 1974 pronouncement by the Supreme Court that it would hear the Government's appeal of several lower-court cases; and the February 1975 Supreme Court ruling upholding the lower-court decisions. These are the events that led up to the Ford Administration's release of the

previously impounded $9 billion of funds in two stages, in January and February 1975. By February 1975 the full $18 billion authorized in Public Law (PL) 92-500 was available for use by the EPA in the Construction Grants Program.

In July 1976 Congress passed the Public Works Employment Act of 1976 that authorized $700 million, of which $480 million was appropriated for the Construction Grants Program. In May 1977 Congress appropriated an additional $1 billion for this program in supplemental funding for fiscal 1977. These funds were, moreover, appropriated in advance of their actual authorization—an unusual but apparently permissible tactic—in an effort to make the necessary additional funding available in order to maintain the program's momentum. In December 1977 Congress passed, and the President signed, the Clean Water Act Amendments of 1977. This Act included Construction Grants Program authorizations (but not appropriations) of $4.5 billion for fiscal 1978 and $5.0 billion each for fiscal years 1979 through 1982; in addition, authorization of supplemental funding already appropriated for fiscal 1977 was included. In March 1978 the Supplemental Appropriation Bill, which included fiscal 1978 funds of $4.5 billion, was passed by Congress and signed by President Carter. The fiscal 1978 funds should have been appropriated at the beginning of the fiscal year. However, the appropriation for the fiscal 1978 funds was included in the same fiscal 1978 Supplemental Appropriation Bill that contained funds for the controversial B-1 bomber—supported by some factions in Congress but opposed by the President. Since a last-ditch effort by supporters to save the B-1 bomber failed, the House agreed on February 23, 1978 to delete $462 million in B-1 funds from the fiscal 1978 Appropriation Bill. Consequently, on March 7, 1978 President Carter signed into effect the Supplemental Fiscal 1978 Appropriations Bill, which included the $4.5 billion in fiscal 1978 funds for the Construction Grants Program.

Continuing with the chronology in Table 3, in September 1978, appropriations were passed and signed by the President for fiscal 1979 funding totaling $4.2 billion. This $4.2 billion figure represented a shortfall of $800 million from the amount authorized for that year under the 1977 Clean Water Act. Congress and the Administration at the time expected that the size of the Construction Grants Program would not reach the $5 billion level of authorization scheduled for this year and, therefore, scaled back the appropriations in an attempt to reduce the indicated Federal budget, although without any real intent to slow down or reduce the scope of the Construction Grants Program. As indicated in Table 3, the total amount of authorized funds then stood at $44.20 billion, of which $28.18 billion had actually been appropriated. The $16.02 billion difference represents the $5 billion in authorized but as-yet unappropriated funds in each of the fiscal years 1980-82, the $220 million of Public Works Employment Act of 1976 authorized funds that have not been appropriated, and the $800 million difference between authorization and appropriations for fiscal 1979. The last entry in the table shows that as of January 1979, the Administration had recommended a fiscal 1980 appropriation of $3.8 billion, which has been discussed earlier in this report. It is anticipated that Congress will act on the Adminstrative recommendation for fiscal 1980 appropriations prior to the start of the fiscal 1980 year on October 1, 1979.

## HISTORICAL FINANCIAL INFORMATION AND UPDATE OF THE CONSTRUCTION GRANTS PROGRAM

Historical financial data on the Construction Grants Program are presented in Table 4. There are several legislative sources for the funds used to finance the construction of sewage treatment plants. Funding related to the earlier, 1972 Clean Water Act, or PL 92-500, is set forth in a separate column under each category indicating the funding stage. The total column in each category listed in the table includes, in addition to the PL 92-500 funds, those funds associated with PL 84-660 (all funding prior to 1972 or associated with this law) and with PL 93-207, which deals with Federal reimbursables to cities for projects previously under way.

Table 4 documents the authorizations, appropriations (which are subsequently allocated among the states by the EPA), obligations, and outlays of construction grants funds since fiscal 1957. The buildup of past obligations, coupled with the higher level of current and projected obligations, indicates increasingly larger annual outlays. Furthermore, despite the bureaucratic difficulties previously discussed, developments aimed at expediting the funding process and better matching manufacturers' cash flow with working capital requirements indicate that the funds are likely to be disbursed at a faster rate than in previous years.

Referring again to Table 4, appropriated funds were almost fully obligated between 1957 and 1971. During 1972 the EPA experienced a slowdown in construction grants applications because of the pending 1972 Clean Water Act, which increased the share of Federal funding from 55% to 75% (with municipalities and states contributing to the balance). During 1973, when obligations leaped to $2.996 billion, grant obligations largely caught up with funds available from the prior year. The plateau in 1974 was due primarily to procedural difficulties in processing grant applications because of substantial changes mandated by the new law. These difficulties

were to a large degree overcome, as indicated by the obligation-of-funds' level in fiscal 1975 and 1976. Fiscal 1977 experienced a surge in obligations, which reached a total of $7.1 billion, with the PL 92-500 portion at $6.7 billion. This surge was dictated by the cutoff date of September 30, 1977, by which time any unused funds would be reallocated among the states. The month of September 1977 experienced a record level of $2.6 billion of PL 92-500 funds being obligated. By the end of fiscal 1977, therefore, all but less than $200 million of the $18 billion in PL 92-500 funds had been obligated. In fiscal 1978 obligations declined sharply to $2.4 billion, which is attributed to four factors: 1) the surge in fiscal 1977 obligations effectively advanced a number of projects scheduled for fiscal 1978 because of the need to use the funds prior to reallotment; 2) the new 1977 Clean Water Act incorporated procedural changes that dictated bureaucratic delays; 3) a portion of fiscal 1978 obligations was postponed to fiscal 1979 because, for the first time in five years, there was no reallotment required by the end of the year. Funds appropriated during 1978 had a full 24 months to go before allotment was required and, hence, there was no incentive to use them up immediately; and 4) there had been a delay in appropriation of the fiscal 1978 funding period. The appropriations for fiscal 1978 were withheld until March 1978 versus what would have been the normal October 1977 date (owing to the previously mentioned link-up between the fiscal 1978 funding and that for the B-1 bomber). If this analysis is correct, and assuming the absence of additional bureaucratic factors, we would anticipate an increase in the rate of obligations during fiscal 1979, as discussed below.

Table 4 data indicate that the outlay figures have also been rising at a dramatic rate, from a total of less than $500 million in fiscal 1972 to $3.5 billion in fiscal 1977. However, these totals still lag far behind the obligations, as is to be expected. In fiscal 1978 the PL 92-500 and "Subsequent-Funding"-related outlays increased 9% to $2.960 billion. However, lower "Old Law" (PL 84-660) and "Reimbursable" (PL 93-207) outlays resulted in a net decline in fiscal 1978 total outlays.

The detailed breakdown of the obligations and outlays by various categories given in Table 5 should provide a fuller picture of the real funding momentum. The PL 92-500 funds disbursed through September 1978 total only $9.3 billion, in contrast with the $20.6 billion obligated through the end of that fiscal year. *It is the difference between these*

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**Table 4**
**Construction Grants Program:**
**Historical Financial Information**
***(Dollars in millions)***

| | Authorizations | | Appropriations (Allocations) | | Obligations | | Outlays | |
|---|---|---|---|---|---|---|---|---|
| Fiscal year | PL 92-500 and Subsequent Funding | Total | PL 92-500 and Subsequent Funding | Total | PL 92-500 and Subsequent Funding | Total | PL 92-500 and Subsequent Funding | Total |
| 1957-86 Cumulative | — | $770 | — | $709 | — | [illegible] | — | $451 |
| 1987 | — | 150 | — | 150 | — | 131 | — | 85 |
| 1988 | — | 450 | — | 203 | — | 191 | — | 122 |
| 1989 | — | 700 | — | 714 | — | 201 | — | 135 |
| 1970 | — | 1,000 | — | 800 | — | 435 | — | 170 |
| 1971 | — | 1,250 | — | 1,000 | — | 1,152 | — | 478 |
| 1972 | — | 2,000 | — | 2,000 | — | 880 | — | 413 |
| 1973 | $5,000 | 7,000(a) | $2,000 | 3,000(b) | $1,581 | 2,886 | — | 604 |
| 1974 | 0,000 | 6,000(a) | 3,000 | 3,000 | 1,483 | 2,791 | $169 | 1,552 |
| 1975 | 7,000 | 7,000 | 4,000 | 4,000 | 3,848 | 4,277 | 874 | 1,890 |
| 1976 | — | — | 0,000 | 0,000 | 4,298 | 4,329 | 1,700 | 2,430 |
| Transition Quarter | 7,000 | 400 | 400 | 400 | 982 | 988 | 788 | 919 |
| 1977 | 1,000 | 1,000 | 1,500(c) | 1,500(c) | 6,863 | 7,140 | 2,704 | 3,545 |
| 1978 | 24,500 | 24,500 | 4,500 | 4,500 | 2,229 | 2,300 | 2,990 | 3,107 |

Source: Environmental Protection Agency—Financial Management Division, Municipal Construction Division, Grants Administration Division.

(a) Fiscal 1973 includes $2.0 billion and fiscal 1974 includes $0.0 billion for reimbursable projects under PL-93-207.
(b) Includes $1.0 billion for reimbursable allocation.
(c) Includes $0.5 billion for reimbursable allocation.

*funds obligated but as yet unspent, coupled with additional future obligations, that will be dictating the rate of outlays for the next several years.*

Table 6, in two parts, presents PL 92-500 and subsequent funding obligations and outlays on a monthly and year-to-date basis. In the top portion of Table 6, the data for fiscal 1977 illustrate clearly the dramatic surge in monthly obligations toward the end of the year. At the early part of the year, obligations were running well under $300 million a month; by August, the amount had jumped to $618 million and, in September, reached a record of $2.7 billion. Data on 1978 also point up the dramatic dropoff in the first several months of the fiscal year. In fact, through May 1978, obligations were averaging less than $100 million a month. In fiscal 1979, after very little activity in the first six months, March, April, and May data reflect noticeable increases in the rate of obligations. Monthly obligations are expected to average $500 a month for the balance of the year.

In contrast to the monthly and yearly volatility in obligations, the monthly outlays have increased at a fairly consistent, although moderate, rate throughout fiscal 1978 and into fiscal 1979. Moreover, the lower portion of Table 6 indicates that through May of the current fiscal year, obligations of $1.2 billion are approximately twice those of the depressed year-ago fiscal year 1978. And outlays of $2.3 billion represent a 28% increase over the comparable-year-ago $1.8 billion. For the full fiscal year 1979, we project an 18% gain to the $3.5 billion level.

## UPDATE OF FUNDING LOGJAM PHENOMENON AND CONSTRUCTION START TRENDS

There are three steps in the funding process under the Construction Grants Program. Step 1, project planning, represents an estimated 1% of the contract value. Step 2, design, represents an estimated 5% to 10% of contract value. Step 3 is the construction grant itself, which represents 80% to 90% of the value. Once Step 3 has been completed, construction of the sewage treatment plant can proceed. The Step 3 Funding Logjam, as we have called this phenomenon—which is described more accurately as a preconstruction lag subsequent to the Step 3 funding—is what appears to be an inordinate delay in the construction starts of plants that have been not only planned and designed but have received construction funding approval. This logjam phenomenon has been described in detail in previous "Environmental Control Industry" reports (May 10, 1977 and April 28, 1978). Factors contributing to the problem include competition at the local construction level, unwillingness or difficulty in financing at the municipal or state level to raise appropriate funding shares, and a series of bureaucratic and procedural changes. Competition at the local construction level, which prompted protests against bidding procedures and a variety of related lawsuits no longer seem to be factors, as nonresidential construction has since been so strong in the economy. Table 7 and Chart 1 illustrate quite clearly the pick-up in bond sales that began in the

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**Table 6**
**Construction Grants Program:**
**Obligations and Outlays by Category**
*(Dollars in millions)*

| | 1973 | 1974 | 1975 | 1976 | Transition Quarter | 1977 | 1978 | 1973-78 |
|---|---|---|---|---|---|---|---|---|
| | | | — — *Obligations* — — | | | | | |
| Old Law (PL 84-660) | $1,405 | $49 | $53 | $14 | $2 | $(5) | — | $1,518 |
| Reimbursables (PL 93-207) | — | 1,249 | 528 | 48 | 4 | 482 | $87 | 2,399 |
| PL 92-500 and subsequent funding(a) | 1,591 | 1,493 | 3,648 | 4,288 | 682 | 6,683 | 2,229 | 20,040 |
| Total | $2,996 | $2,791 | $4,227 | $4,329 | $688 | $7,140 | $2,198 | $24,557 |
| | | | — — *Outlays* — — | | | | | |
| Old Law (PL 84-660) | $884 | $717 | $842 | $560 | $82 | $195 | — | $2,838 |
| Reimbursables (PL 93-207) | — | 678 | 422 * | 154 | 29 | 848 | $147 | 2,088 |
| PL 92-500 and subsequent funding(a) | — | 159 | 874 | 1,788 | 798 | 2,710 | 2,980 | 9,267 |
| Total | $884 | $1,552 | $1,938 | $2,428 | $919 | $3,545 | $3,137 | $14,173 |

Source: Environmental Protection Agency, Financial Management Division.
( ) Parentheses denote negative amount that corresponds to grant adjustments.
(a) Includes funds from the Public Works Employment Act of 1976, 1977 supplemental appropriation, and 1978 funding.

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**Table 6**
**PL 92-500 and Subsequent Allocations:**
**Obligations and Outlays by Month and by Year**
*(Dollars in millions)*

**By Month**

| | Obligations | | | Outlays | | |
|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1977 | 1978 | 1979 |
| October | NA | $3.0 | $88.3 | NA | $188.7 | NA |
| November | NA | −18.6(R) | NA | NA | 294.0 | NA |
| December | NA | 48.2 | NA | NA | 339.4 | NA |
| January | $294.7 | 186.8 | 133.0 | $263.0 | 351.0 | NA |
| February | 208.4 | 82.4 | 67.2 | 291.0 | 180.1 | $279.7 |
| March | 480.6 | 108.2 | 319.0 | 353.7 | 243.0 | 371.0 |
| April | 157.5 | 88.7 | 147.0 | 180.6 | 253.0 | 282.0 |
| May | 291.0 | 118.0 | 201.0 | 215.4 | 210.0 | 285.0 |
| June | 913.0 | 382.0 | | NA | 340.2 | |
| July | 583.6 | 217.2 | | NA | 251.0 | |
| August | 018.5 | 178.1 | | 331.0 | 395.3 | |
| September | 2,607.5 | 992.6 | | 280.0 | 380.1 | |
| Year | $8,883.0 | $2,229.0 | | $2,710.0 | $2,980.0 | |

**By Year**

| | Obligations | | | Outlays | | |
|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1977 | 1978 | 1979 |
| October | NA | $3.0 | $88.3 | NA | $188.7 | NA |
| November | NA | −18.6(R) | NA | NA | 480.7 | NA |
| December | $525.0 | 34.4 | 280.7 | $631.0 | 890.1 | NA |
| January | 780.5 | 221.3 | 418.7 | 833.0 | 941.1 | $1,150.0 |
| February | 988.9 | 283.7 | 486.0 | 1,054.0 | 1,121.2 | 1,430.3 |
| March | 1,480.5 | 391.8 | 806.5 | 1,398.5 | 1,363.2 | 1,702.1 |
| April | 1,694.0 | 491.0 | 953.5 | 1,438.0 | 1,588.0 | 1,984.1 |
| May | 1,945.0 | 608.5 | 1,214.5 | 1,653.4 | 1,774.4 | 2,269.0 |
| June | 2,858.5 | 910.5 | | NA | 2,078.6 | |
| July | 3,363.1 | 1,127.7 | | 2,080.0 | 2,277.6 | |
| August | 3,901.6 | 1,305.8 | | 2,430.0 | 2,672.9 | |
| September | 6,508.0 | 2,329.0 | | 2,710.0 | 2,980.0 | |

Note: Numbers may not add to totals because of revisions and rounding.
NA: Not available.
(R): Revised.

third quarter of 1976 and continued through 1977. After a decline in the first quarter of 1978, the pace picked up again and continued through the end of the first quarter of 1979, the last period for which data are available. Analysis of these and other factors led us to conclude many months ago that the Step 3 Funding Logjam had been broken.

The Table 8 summary of the Construction Grants Program Step 3 Funding Logjam also serves as evidence that the logjam has been broken decisively. The first two columns in the table list the number and total dollar volume of all projects awaiting construction under Step 3 grants. The next two columns present the number and value of Step 3 grant projects that are more than six months old. The historical pattern from January 1975 through April 1977 indicates that a dollar volume of $1 billion or so could be considered a normal backlog of projects.

From May 1976—when the backlog was just under $1 billion—to February 1977, the dollar value of the backlog expanded to almost $2 billion. By February 1978, the figure had declined to $1.2 billion, and then moved up dramatically, reflecting the surge in obligations toward the end of fiscal 1977. As these projects moved into the construction stage during 1978, this Step 3 Funding Logjam began to be worked off. By June 1979, the dollar volume had declined to $1.1 billion and the number of projects more than six-months' old was down to 296 from the peak of 745 in April 1978.

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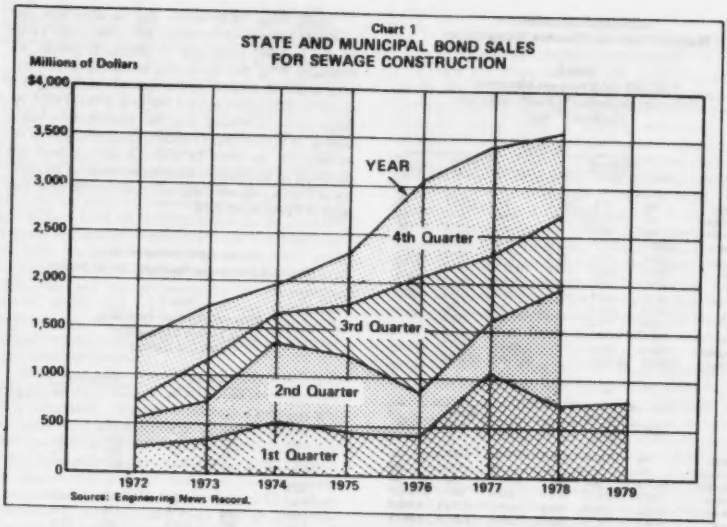
**Table 7**
**State and Municipal Bond Sales**
**for Sewage Construction**
*(Dollars in millions)*

| | Quarterly | | Year to Date | |
|---|---|---|---|---|
| | Amt | % Chg | Amt | % Chg |
| **1972** | | | | |
| 1 Qtr | $287 | — | $287 | — |
| 2 Qtr | 303 | — | 590 | — |
| 3 Qtr | 192 | — | 782 | — |
| 4 Qtr | 556 | — | 1,337 | — |
| **1973** | | | | |
| 1 Qtr | $330 | 15.0% | $330 | 15.0% |
| 2 Qtr | 448 | 47.9 | 778 | 31.9 |
| 3 Qtr | 405 | 110.9 | 1,183 | 51.3 |
| 4 Qtr | 589 | 6.0 | 1,772 | 32.5 |
| **1974** | | | | |
| 1 Qtr | $536 | 62.0% | $536 | 62.0% |
| 2 Qtr | 907 | 98.1 | 1,245 | 72.0 |
| 3 Qtr | 284 | (29.8) | 1,629 | 37.7 |
| 4 Qtr | 391 | (40.4) | 1,891 | 11.8 |
| **1975** | | | | |
| 1 Qtr | $484 | (10.0)% | $484 | (10.0)% |
| 2 Qtr | 798 | (4.7) | 1,293 | (0.8) |
| 3 Qtr | 539 | 89.9 | 1,792 | 10.0 |
| 4 Qtr | 518 | 47.8 | 2,308 | 18.5 |
| **1976** | | | | |
| 1 Qtr | $418 | (13.6)% | $418 | (13.6)% |
| 2 Qtr | 488 | (38.1) | 887 | (29.2) |
| 3 Qtr | 1,179 | 118.8 | 2,066 | 15.2 |
| 4 Qtr | 871 | 68.3 | 2,936 | 31.5 |
| **1977** | | | | |
| 1 Qtr | $1,087 | 160.0% | $1,087 | 160.0% |
| 2 Qtr | 584 | 24.8 | 1,671 | 88.4 |
| 3 Qtr | 639 | (45.9) | 2,310 | 11.8 |
| 4 Qtr | 1,154 | 18.8 | 3,464 | 14.1 |
| **1978** | | | | |
| 1 Qtr | $704 | (35.2)% | $704 | (35.2)% |
| 2 Qtr | 1,268 | 116.8 | 1,863 | 17.5 |
| 3 Qtr | 754 | 18.0 | 2,717 | 17.6 |
| 4 Qtr | 840 | (27.2) | 3,557 | 2.7 |
| **1979** | | | | |
| 1 Qtr | $700 | 10.8% | $700 | 10.8% |

Source: Engineering News Record
( ) Parentheses denote decline.
(a) Data include only offerings in excess of $5 million and those described as financing for sewerage or pollution control projects.




It is also clear from the table that the total number of projects awaiting construction surged from 624 on March 7, 1977 to 1,331 on October 13, 1977, which corresponds to the surge in obligations in fiscal 1977. In parallel, the total dollar volume of projects awaiting construction increased from $2.6 billion on March 7, 1977 to $5.6 billion on October 13, 1977. By June 13, 1979, total projects had declined to 508 with a dollar volume of $1.81 billion. Thus, it appears that the preconstruction lag has been significantly reduced, which should be reflected in a dramatic increase in the rate of construction starts.

Chart 2 graphically portrays several series of data indicative of sewage treatment plant construction trends. Because of the volatility of the monthly data (see Table 9), an average of the trailing-12-month figures for each series (Table 10) is offered as well. As depicted in the chart, the historical trend is upward in the sewage treatment markets, but construction starts remained on a plateau from the beginning of 1976 until the final month of 1977, when it began to move upward again. In the first half of calendar 1977, the bidding-volume line, which we believe is a lead indicator of the trend in construction starts, moved for the first time above the construction-start line, and continued its dramatic upward move through the first half of 1978. Since that time, construction starts have moved up dramatically. For all of 1978, construction starts advanced 22%. For the first four months of 1979, the rate of increase has slowed to 5% to date. The trends in new plans and bidding volume indicate a relatively flat level of construction starts for the next 12 months.

In summary, the phenomenon that we have been calling the Step 3 Funding Logjam had been adversely affecting the construction starts pattern. This in turn had been holding back the rate of outlays that would in part be earmarked for purchase of equipment used in the sewage treatment plants. The higher level of construction starts experienced in the last 15 months should now be resulting in a pick-up in the order rate for equipment suppliers. Although we do not envision a substantial move upward in the level of construction starts for the balance of 1979, the progress of these projects should permit an accelerating rate of equipment orders for the balance of 1979 and into 1980. The principal environmental control industry participants in this market are listed in matrix form in Chart 3. The companies most likely to be affected by the projected trends in the municipal wastewater equipment market, as determined by the use of Chart 3, are: Envirotech Corporation (20), General Signal Corporation (36), Peabody International

**Environmental Control Industry**
**Municipal Wastewater Equipment Market Review**

**Table 8**
**Construction Grant Program Step 3 Funding Logjam**
**Preconstruction Lags**
*(Dollars in billions)*

| | Projects Awaiting Construction | | Those More Than Six Months Old | |
|---|---|---|---|---|
| Date | Number | Volume | Number | Volume |
| 6/13 | 500 | $1.81 | 290 | $1.10 |
| 5/14 | 515 | 1.94 | 300 | 1.20 |
| 4/11 | 571 | 2.09 | 373 | 1.40 |
| 3/9 | 607 | 2.04 | 341 | 1.12 |
| 2/12 | 630 | 2.17 | 343 | 1.12 |
| 1/15/79 | 720 | 2.58 | 402 | 1.50 |
| 12/1/78 | 790 | 2.86 | 460 | 1.67 |
| 11/8 | 821 | 2.96 | 487 | 1.77 |
| 10/23 | 824 | 2.92 | 482 | 1.76 |
| 9/14 | 752 | 2.48 | 510 | 1.81 |
| 8/14 | 752 | 2.90 | 533 | 2.04 |
| 7/11 | 784 | 2.93 | 549 | 2.29 |
| 6/15 | 809 | 2.90 | 570 | 2.33 |
| 4/9 | 897 | 3.40 | 745 | 2.80 |
| 2/13 | 1,007 | 1.00 | 274 | 1.19 |
| 1/11/78 | 1,147 | 4.50 | 357 | 1.46 |
| 12/12/77 | 1,210 | 5.10 | 252 | 1.42 |
| 11/8 | 1,280 | 5.30 | 253 | 1.46 |
| 10/13 | 1,331 | 5.60 | 323 | 1.83 |
| 9/8 | 903 | 3.50 | 246 | 1.40 |
| 8/8 | NA | NA | 263 | 1.62 |
| 7/13 | NA | NA | 280 | 1.54 |
| 6/8 | NA | NA | 250 | 1.37 |
| 5/8 | NA | NA | 281 | 1.53 |
| 4/8 | 630 | 2.70 | 281 | 1.73 |
| 3/7 | 624 | 2.60 | 291 | 1.79 |
| 2/4 | 620 | 2.70 | 303 | 1.95 |
| 1/10/77 | 576 | 2.60 | 306 | 1.70 |
| 12/6/76 | 622 | 2.90 | 223 | 1.16 |
| 10/14 | 671 | 3.30 | 215 | 1.24 |
| 8/9 | 647 | 3.60 | 229 | 1.35 |
| 7/31 | NA | NA | 233 | 1.30 |
| 6/30 | NA | NA | 214 | 1.21 |
| 5/31 | NA | NA | 153 | 0.89 |
| 4/30 | NA | NA | 139 | 0.86 |
| 3/31 | NA | NA | 143 | 0.83 |
| 2/29 | NA | NA | 143 | 0.82 |
| 1/31/76 | NA | NA | 142 | 0.99 |
| 12/31/75 | NA | NA | 170 | 1.21 |
| 11/30 | NA | NA | 94 | 0.55 |
| 10/31 | NA | NA | 87 | 0.24 |
| 9/30 | NA | NA | 87 | 0.20 |
| 8/31 | NA | NA | 80 | 0.29 |
| 7/31 | NA | NA | 91 | 0.30 |
| 6/30 | NA | NA | 95 | 0.41 |
| 5/31 | NA | NA | 129 | 0.48 |
| 4/31 | NA | NA | 128 | 0.48 |
| 3/31 | NA | NA | 134 | 0.55 |
| 2/28 | NA | NA | 154 | 0.67 |
| 1/31/75 | NA | NA | 103 | 0.90 |

Source: Environmental Protection Agency; Kidder, Peabody & Co. Incorporated computer.
NA Not available.

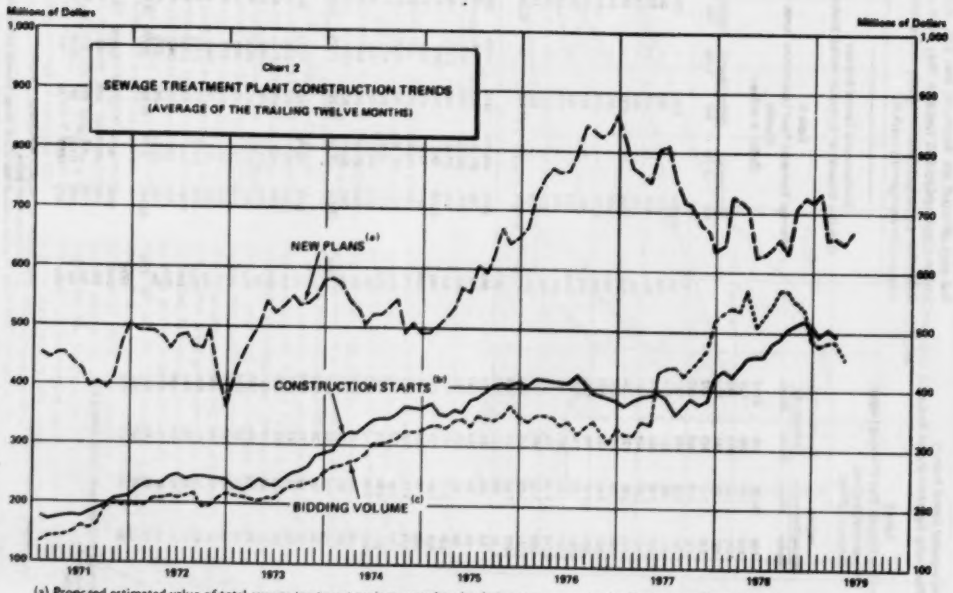
Corporation (24), and Wheelabrator-Frye, Inc. (33). In addition, although not shown in Chart 3 because a relatively small portion of their corporate sales is involved in environmental control-related markets, but also affected are Rexnord, Inc. (19) and Trans Union Corporation (34) because they have subsidiaries that participate meaningfully in the municipal wastewater equipment market.

**Environmental Control Industry**
**Municipal Wastewater Equipment Market Review**

**Table 9**
**Sewage Treatment Plant Construction Trends**
**Monthly**
*(Dollars in millions)*

| | New Plants(a) | | Bidding Volume(b) | | Construction Starts(c) | |
|---|---|---|---|---|---|---|
| | Amt | % Chg | Amt | % Chg | Amt | % Chg |
| **1976** | | | | | | |
| Jan. | $1,204 | — | $208 | — | $386 | — |
| Feb. | 1,253 | — | 301 | — | 352 | — |
| Mar. | 830 | — | 229 | — | 350 | — |
| Apr. | 735 | — | 326 | — | 371 | — |
| May | 729 | — | 270 | — | 361 | — |
| June | 484 | — | 303 | — | 544 | — |
| July | 1,177 | — | 312 | — | 612 | — |
| Aug. | 962 | — | 474 | — | 321 | — |
| Sept. | 850 | — | 362 | — | 330 | — |
| Oct. | 940 | — | 378 | — | 470 | — |
| Nov. | 611 | — | 347 | — | 295 | — |
| Dec. | 780 | — | 420 | — | 294 | — |
| Total | $10,350 | — | $3,870 | — | $4,594 | — |
| **1977** | | | | | | |
| Jan. | $761 | (45.4)% | $213 | 2.5% | $257 | (9.8)% |
| Feb. | 736 | (41.3) | 305 | 1.3 | 421 | 19.9 |
| Mar. | 731 | (12.0) | 490 | 112.2 | 419 | 19.7 |
| Apr. | 578 | (21.4) | 288 | (11.7) | 438 | 18.1 |
| May | 1,350 | 86.0 | 1,314 | 388.7 | 416 | 15.2 |
| June | 587 | 21.3 | 430 | 38.0 | 479 | (12.1) |
| July | 494 | (58.0) | 318 | 1.3 | 273 | (55.4) |
| Aug. | 507 | (47.3) | 364 | (23.2) | 510 | 58.9 |
| Sept. | 509 | (8.0) | 407 | 41.1 | 390 | 18.2 |
| Oct. | 475 | (44.1) | 480 | 26.8 | 367 | (21.9) |
| Nov. | 402 | (34.4) | 570 | 64.3 | 380 | 24.7 |
| Dec. | 300 | (50.0) | 975 | 132.1 | 661 | 121.4 |
| Total | $7,814 | (20.5)% | $6,255 | 61.3% | $4,994 | 8.7% |
| **1978** | | | | | | |
| Jan. | $610 | 18.7% | $379 | 77.9% | $470 | 86.4% |
| Feb. | 1,007 | 128.5 | 375 | 23.0 | 311 | (26.2) |
| Mar. | 663 | (8.8) | 430 | (11.5) | 610 | 47.7 |
| Apr. | 479 | (17.1) | 783 | 164.9 | 575 | 31.3 |
| May | 343 | (74.7) | 450 | (65.8) | 466 | 8.4 |
| June | 500 | 3.2 | 724 | 84.9 | 470 | (8.4) |
| July | 853 | 32.1 | 496 | 57.8 | 600 | 119.8 |
| Aug. | 800 | 58.1 | 753 | 108.8 | 585 | 14.7 |
| Sept. | 330 | (43.3) | 431 | (13.3) | 800 | 53.5 |
| Oct. | 1,303 | 186.9 | 331 | (32.2) | 430 | 17.2 |
| Nov. | 661 | 43.1 | 381 | (36.7) | 464 | 26.1 |
| Dec. | 332 | (14.9) | 380 | (3.1) | 480 | (23.8) |
| Total | $8,583 | 12.5% | $5,885 | (6.2)% | $6,060 | 22.1% |
| **1979** | | | | | | |
| Jan. | $860 | 18.3% | $271 | (28.5)% | $362 | (24.3)% |
| Feb. | 748 | (56.7) | 443 | 18.1 | 403 | 29.6 |
| Mar. | 718 | 8.8 | 453 | 5.3 | 425 | (31.3) |
| Apr. | 386 | (19.4) | 387 | (49.8) | 406 | (29.0) |
| May | 997 | 193.3 | NA | NA | NA | NA |

Note: Numbers may not add to totals because of rounding.
( ) Parentheses denote decline.
(a) Proposed estimated value of total sewage treatment projects entering the design stage—*Engineering News Record*.
(b) Value of contracts of total sewage treatment projects as of the contract award—*Engineering News Record*.
(c) Contract value of sewage and waste disposal projects at or within 60 days of construction start—*Dodge Construction Potentials*.




(a) Proposed estimated value of total sewage treatment projects entering the design stage, recorded by *Engineering News Record*.
(b) Contract value of sewage and waste disposal projects at or within 60 days of construction start *(Dodge Construction Potentials)*.
(c) Value of contracts of total sewage treatment projects as of the contract award, recorded by *Engineering News Record*.

Chart 3

Environmental Control Industry

**PRINCIPAL ENVIRONMENTAL CONTROL INDUSTRY PARTICIPANTS(a)**

☆ Major participation
● Minor participation

| | AIR | | | | | | | | | WATER | | | | SOLID | | OTHER BUSINESS EXPOSURE(d) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PARTICULATE | | | | | SULFUR DIOXIDE | | | | | | | | | | | |
| | CBP, WE, MCAI | P-C-I | CBE DYNO ENVIRONE | WET SCRUBBERS | DRY SCRUBBERS | COMBUSTION | MUNICIPAL | INDUSTRIAL | THERMAL | SPECIALTY CHEMICALS | LINING/TANKS HARDWARE | SERVICES | EQUIPMENT | ENERGY RECYCLING/RECOVERY | ENERGY SERVICES | % OF TOTAL | DESCRIPTION |
| BROWNING-FERRIS INDUSTRIES | | | | | | | | | | ☆ | ☆ | | ☆ | | | — | |
| SCA SERVICES | | | | | | | | | | ☆ | ☆ | | ● | | | — | |
| WASTE MANAGEMENT | | | | | | | | | | ☆ | ☆ | | ☆ | | | — | |
| COMBUSTION EQUIPMENT ASSOCIATES | ☆ | ● | | ☆ | | ☆ | | | | | | | ● | | | 15 | Agro-equipment |
| ENVIROTECH | ☆ | ☆ | ☆ | ☆ | ● | | ☆ | ☆ | | | | | ☆ | | | 20 | Mining equipment |
| GENERAL SIGNAL | | | | | | | ☆ | ☆ | | ● | | | | | ● | 65 | Controls, instrumentation, transportation, electrical equipment, processing |
| MARLEY | | | | | | | | | ☆ | | | | | | ● | 60 | Heat exchangers, dehumidifiers, ventilators, underground water reservoirs, engineering services and equipment |
| PEABODY INTL | ● | ● | | ☆ | | ☆ | ● | ● | | | | ☆ | ● | ☆ | | 30 | Consulting engineering, soil cleanups, non-destructive testing, oil field services |
| RESEARCH-COTTRELL | ☆ | ● | | ☆ | ● | | | | ☆ | | | | ● | | | 75 | Consulting engineering, soil cleanups |
| U.S.FILTER | ● | ● | ● | ● | ● | | | ● | | ☆ | | | | | ☆ | 60 | Engineering/construction/project management, petroleum catalysts |
| WHEELABRATOR-FRYE | ☆ | ☆ | | | ☆ | | ☆ | ☆ | | | | | ☆ | | | 50 | Consulting engineering, soil cleanups, coal/coke/gas, specialty foils, carbon papers, materials handling equipment, marine |
| ZURN | ● | ● | | ● | | | ● | ● | ☆ | | | | | | ● | 35 | Power generation systems, future products |

Source: Kidder, Peabody & Co. Incorporated estimates.

(a) The list is not all-inclusive and is meant to be qualitative as opposed to quantitative.

(b) Electrostatic precipitators, wet scrubbers, mechanical collectors.

(c) Fabric filters.

(d) Including Energy Services.



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**Environmental Control Industry**
**Municipal Wastewater Equipment Market Review**

**Table 18**
**Sewage Treatment Plant Construction Trends**
**Trailing-12-Month Average**
***(Dollars in millions)***

| | New Plants(a) | | Bidding Volume(b) | | Construction Starts(c) | |
|---|---|---|---|---|---|---|
| | Amt | % Chg | Amt | % Chg | Amt | % Chg |
| **1976** | | | | | | |
| Jan. | $674 | 36.2% | $343 | 3.8% | $406 | 8.9% |
| Feb. | 725 | 43.0 | 353 | 5.3 | 417 | 17.5 |
| Mar. | 753 | 46.4 | 350 | 8.5 | 418 | 17.5 |
| Apr. | 772 | 43.5 | 352 | 2.8 | 411 | 12.8 |
| May | 788 | 33.8 | 340 | (1.4) | 412 | 14.4 |
| June | 787 | 36.3 | 340 | 3.0 | 410 | 7.8 |
| July | 786 | 31.4 | 338 | (7.4) | 425 | 11.8 |
| Aug. | 846 | 42.3 | 338 | (3.2) | 408 | 2.5 |
| Sept. | 838 | 33.4 | 346 | 8.3 | 391 | (3.8) |
| Oct. | 829 | 23.5 | 327 | (8.8) | 389 | (4.9) |
| Nov. | 837 | 29.4 | 309 | (16.7) | 388 | (4.9) |
| Dec. | 863 | 32.2 | 323 | (8.2) | 383 | (6.8) |
| **1977** | | | | | | |
| Jan. | $815 | 20.9% | $334 | (5.5)% | $380 | (6.2)% |
| Feb. | 772 | 6.5 | 324 | (8.2) | 380 | (7.4) |
| Mar. | 763 | 1.3 | 345 | (2.1) | 382 | (8.8) |
| Apr. | 750 | (2.8) | 342 | (2.8) | 398 | (3.2) |
| May | 802 | 4.7 | 429 | 26.2 | 402 | (2.4) |
| June | 818 | 6.8 | 430 | 26.0 | 397 | (3.2) |
| July | 753 | (6.4) | 430 | 33.7 | 368 | (13.1) |
| Aug. | 710 | (15.3) | 427 | 27.1 | 384 | (5.4) |
| Sept. | 711 | (15.2) | 430 | 27.2 | 380 | (8.8) |
| Oct. | 660 | (18.8) | 456 | 39.4 | 380 | (2.3) |
| Nov. | 668 | (20.2) | 475 | 53.7 | 380 | (8.8) |
| Dec. | 635 | (26.4) | 521 | 61.3 | 418 | 8.8 |
| **1978** | | | | | | |
| Jan. | $644 | (21.0)% | $536 | 60.1% | $435 | 14.2% |
| Feb. | 724 | (6.2) | 541 | 67.0 | 435 | 10.1 |
| Mar. | 720 | (5.8) | 530 | 55.4 | 442 | 12.8 |
| Apr. | 711 | (5.2) | 570 | 66.4 | 464 | 14.1 |
| May | 627 | (21.8) | 584 | 17.5 | 467 | 13.7 |
| June | 629 | (22.3) | 539 | 21.1 | 467 | 16.1 |
| July | 642 | (14.7) | 543 | 24.5 | 484 | 31.2 |
| Aug. | 667 | (6.2) | 570 | 34.9 | 480 | 27.8 |
| Sept. | 635 | (10.7) | 571 | 30.1 | 508 | 30.8 |
| Oct. | 700 | 4.3 | 567 | 22.1 | 513 | 36.0 |
| Nov. | 726 | 8.7 | 540 | 13.7 | 521 | 36.8 |
| Dec. | 721 | 13.5 | 489 | (6.1) | 508 | 22.1 |
| **1979** | | | | | | |
| Jan. | $734 | 14.0% | $480 | (10.3)% | $480 | 14.5% |
| Feb. | 655 | (9.6) | 485 | (10.4) | 500 | 19.1 |
| Mar. | 660 | (8.8) | 487 | (8.1) | 490 | 10.9 |
| Apr. | 658 | (8.8) | 457 | (20.7) | 470 | 4.8 |
| May | 697 | 11.2 | NA | NA | NA | NA |

( ) Parentheses denote decline.
(a) Proposed estimated value of total sewage treatment projects entering the design stage—*Engineering News Record*
(b) Value of contracts of total sewage treatment projects as of the contract award—*Engineering News Record*
(c) Contract value of sewage and waste disposal projects at or within 60 days of construction start—*Dodge Construction Potentials*

## ISSUES CONCERNING OUTLOOK AND PROFITABILITY OF EQUIPMENT MANUFACTURERS

After more than 18 months of relative inactivity, the outlook for sales in the municipal wastewater equipment market is improving, triggered by the increase in construction starts. Despite this momentum, however, the major suppliers of municipal wastewater equipment—i.e., the larger, relatively more sophisticated equipment companies with broad product lines—are not faring as well as the industry market in general. The general competitive state of the business, in no small part determined by Federal program-bidding procedures, is leaving little room for adequate reward for research and development and improving product and system design. Metal benders with relatively low overhead are at a distinct advantage in the current market environment, under the "low-cost" emphasis. Little economic incentive exists to emphasize or incorporate into plant design energy efficiency, improved operation and maintenance modifications, and overall cost effectiveness over a 20-year life cycle of a typical treatment works plant. This is made evident by the fact that almost half of the plants in operation today fail to meet design specifications.

Fortunately, we are still in the relatively early stages of the Construction Grants Program. Of 5,323 Step 3 grants for obligations made since the inception of the program, only 1,349 projects have been completed (25%). And these completed projects were weighted with relatively smaller projects representing less than 10% of the total dollar value of the Step 3 grant obligations. Reappraisal is now under way to examine issues critical to improving operating performance, by means of proper design, construction, and operation, of municipal wastewater treatment plants.

High-level meetings were held during July to include representatives of the House, Senate, EPA, the Administration, OMB, and industry participants. Issues under examination included: methods to reduce red tape and expedite processing of grant applications; procedures to permit life-cycle cost evaluation (including energy cost) rather than just lowest initial cost to be considered in bid evaluations; restoration of consulting engineers' professional-judgment role and allowing qualification of proprietary-product advantages in bidding procedures; streamlining of the bid protest and arbitration procedures; and expediting of payment procedures such as progress payments, bond substitution for retention funds, and Step 3 Change Orders.

Should these Construction Grants Program reappraisals call for the desired upgradings, the stage would be set for profit improvement potential for major equipment suppliers such as Envirotech, General Signal, Peabody International, Wheelabrator-Frye, and others. If not, we would expect lackluster earnings performance in this sector of the environmental control markets to persist for the next 18 months at least.

**Jeffrey A. Klein (212) 747-3830**
**Laurie Doane, Research Assistant**

The Research Department

Kidder, Peabody & Co.
INCORPORATED

January 23, 1979

## ENVIRONMENTAL CONTROL INDUSTRY

### Municipal Wastewater Equipment Market

- **Mixed trends exhibited in the Construction Grants Program.**
- **Step 3 Funding Logjam breaking gradually . . . Increase in Construction starts of Sewage Treatment Projects implies improving equipment order rate in 1979, but industry competition remains intense.**
- **Less-than-satisfactory pace of new obligations poses question about timing and sustainability of order rate improvement.**
- **Administrative fiscal-1980 budget control (U.S. Federal Deficit) measures, to be announced January 22, likely to include cutback of funding.**
- **Administrative/Congressional debate to follow could result in adverse publicity and negatively affect market psychology of water pollution control-associated stocks.**

Currently mixed trends are being exhibited in the components we use to analyze trends in the municipal wastewater equipment market. For fiscal 1978, both obligations and outlays of the Federally funded Construction Grants Program fell short of our expectations. Obligations totaled $2.4 billion, compared with our estimate of $3 billion-plus, and outlays totaled $2.9 billion, which was below our $3.2 billion estimate. In fiscal 1977, outlays were $2.7 billion. Thus, the pace of outlays did continue to increase, although at a less-than-projected rate.

Cumulative obligations for the 1973-78 fiscal years amounted to $20.6 billion, and outlays $9.0 billion. Also, of the $20.6 billion obligated, just $1.6 billion of the monies spent represented fully completed sewage treatment plant projects. Thus, substantial growth in the outlay of funds is implied as the total outlay of funds continues to lag far behind the obligations.

The Step 3 Funding Logjam is breaking gradually. The volume of projects more than six months old, where the funds have been obligated but construction not yet started, has declined from the peak of $2.9 billion in April 1978 to $1.8 billion in November 1978. Construction starts (trailing-12-month average) are running more than 20% ahead of the year-ago period, and this implies improving equipment order rates in 1979. However, industry competition remains intense, raising doubts about company profit margin improvement.

Over the near term, political factors are likely to significantly influence market psychology toward leading pollution control companies associated with the municipal wastewater equipment market. By January 22, President Carter will release his projections for the fiscal 1980 budget. When the President took office in 1977, he endorsed President Ford's recommendation of a 10-year $45 billion Construction Grants Program. (The 1977 Clean Water Amendments passed by Congress in December 1977 included funding authorizations, but not appropriations, of $4.5 billion for fiscal 1978 and $5.0 billion for each of fiscal years 1979 through 1982.) In his fiscal 1979 budget, President Carter requested $4.5 billion and Congress appropriated $4.2 billion.

Since the rate of outlays is projected to approximate $3.5 billion in fiscal 1979, a funding cut in fiscal 1980 to the $4.0-billion level, from the previously anticipated $4.5 billion-to-$5.0 billion level, should not meaningfully alter the outlay pace. It is our understanding that the *President's budget will recommend a funding level in the $3.5 billion-to-$3.8 billion range.* After the budget recommendations are released, debate will continue through Appropriations Committees considerations, House and Senate Committees Conferences, and finally the budget will be passed by both Houses prior to the start of the fiscal 1980 year on October 1, 1979.

## *Comment*

During this period, and in particular after the initial recommendations of the President, we anticipate media focus on the fact that funding levels are being reduced, even though the Construction Grants Program should continue to maintain momentum. We maintain a constructive posture toward the fundamental outlook (or the municipal wastewater equipment market in the 1979-80 period.

In the current uncertain stock market environment, however, this pending adverse publicity during the next several weeks could negatively affect market psychology of water pollution control related stocks, including Envirotech (19), General Signal (28), and Wheelabrator-Frye (31)/Neptune International.

**Jeffrey A. Klein (212) 747-3830**

Subsequent to the production of this Comment the budget was released; the indicated funding level is $3.6 billion.

*The information contained in this report has been taken from trade and statistical services and other sources which we deem reliable. We do not represent that it is accurate or complete and it should not be relied upon as such. Any opinions expressed herein reflect our judgment at this date and are subject to change.*

*Additional information on the securities mentioned is available.*

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The Research Department

Kidder, Peabody & Co.
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# Environmental Control Industry

## MUNICIPAL WASTEWATER EQUIPMENT MARKET—QUARTERLY REVIEW

- Congress passes and President Carter signs Appropriations Bill containing necessary fiscal 1978 Construction Grants Program funding.
- Updated statistics introduced for Construction Grants Program obligations and outlays, as well as related state and municipal bond sales data.
- Resolution of Step 3 Funding Logjam.
- Patterns of bidding activity and construction starts indicate acceleration of equipment order rates by mid-to-late 1978.
- Review of salient aspects of 1977 Clean Water Act amendments, including summary of legislation.

*Industry Follow-Up* _____

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**Background and Recent Congressional and Administrative Construction Grants Program Funding Actions**

Recent actions by Congress and the President have removed obstacles that had been impeding forward momentum of the Construction Grants Program. The federally funded Sewage Treatment Construction Grants Program is to date—and will probably remain—the largest public works program undertaken in the history of the United States. The 75% Federal share of funding for constructing municipal sewage treatment plants is providing the major thrust for growth in the municipal wastewater equipment market. The Clean Water Act amendments of 1977, passed by Congress and signed by President Carter in December 1977, included the long-awaited Congressional authorization of the Construction Grants Program funds for fiscal years 1977 through 1982. Before the authorized funds would be available for use, however, they must be included in the budget process by Congressional appropriation. The appropriation for fiscal 1977 had in fact been passed and approved by the President in May 1977, even before the Clean Water Act was passed in December. However, the appropriation for fiscal 1978 funds was included in the same fiscal 1978 supplemental appropriation bill that contained funds for the controversial B-1 bomber—supported by some factions in Congress but opposed by the President. Since a last-ditch effort by supporters to save the B-1 bomber failed, the House agreed on February 23 to delete $462 million in B-1 funds from the fiscal 1978 appropriations bill. Consequently, on March 7 President Carter signed into effect the supplemental fiscal 1978 appropriations bill, which included $4.5 billion in fiscal 1978 funds for the Construction Grants Program. These funds were necessary to maintain momentum of the program, since most of the previously available funds had already been earmarked for specific projects by the end of fiscal 1977.

The latest appropriation brings to $23.98 billion the total of funds authorized and appropriated for the Federal portion of sewage treatment plant construction, of which by September 30, 1977, only $6.3 billion had been spent. In essence, this closing of the gap between the amount available for spending and the amount so far spent, which is analyzed in this report, now sets the stage for growth in the municipal wastewater equipment market. At this point, therefore, it would be helpful to put the recent funding actions into proper historical perspective.

The key terminology in the process of funds utilization includes authorization, appropriation, allocation, obligation, and outlay. Funds are first authorized by Congress. They then usually have to be appropriated—i.e., specifically incorporated into the budget process, although the 1972 amendments to the Federal Water Pollution Control Act both authorized and appropriated funds. Otherwise, all funds authorized are not necessarily appropriated.

Once appropriated by Congress and approved by the President, the Environmental Protection Agency (EPA) next internally allocates the available funds to the various states on the basis of state population, income, and "need." These funds are subsequently obligated to individual projects as applications for particular municipal plants are received by the EPA from the states. In general, if a state does not use its total allocated portion of the funds within 12 months after the end of the fiscal year, the unused portion is reallocated among the remaining states. Thus, a state theoretically has up to 24 months to use its allocated funds. Exceptions to this general rule are provided for, however, as with the Public Works Act of 1976 (funds available until expended) and in the case of the supplemental fiscal 1977 funds (available for three years before reallotment).

Actual disbursements, or expenditures, normally lag obligations by several years because of the time required for the letting of bids and for construction. A substantial time lapse thus exists between Congressional approval of spending programs and the actual flow of money.

This delay can be prolonged by budget decisions made within the government. Until passage of the Congressional Budget Act (1976), the Office of Management and Budget (OMB) under the President would frequently "impound" (i.e., refuse to allow an agency to spend) funds that Congress had appropriated. Up to $9 billion in municipal treatment grants were withheld in this way during the 1973-1975 fiscal years. Following the Supreme Court decision in February 1975 that such impoundment was illegal, President Ford released the funds. The new Congressional Budget Act now requires the Executive Branch to receive Congressional approval for any future impoundments.

Table 1 data highlight the history of legislative, administrative, and judicial actions related to the Construction Grants Program funding. The chronology begins with the August 1972 passage of the 1972 Federal Water Pollution Control amendments, which included the authorization and appropriation of $18 billion of funds. By fiscal 1975 actions by the Nixon Administration had effectively impounded a total of $9 billion, essentially halving the intent of the 1972 Clean Water Act. As a result of lawsuits opposing this practice, significant judicial actions

## Environmental Control Industry

### Table 1
### History of Legislative, Administrative, and Judicial Actions Related to Construction Grant Funds

| Date | Event | Total Funds Impounded | Total Authorized Funds | Total Authorized and Appropriated Funds |
|---|---|---|---|---|
| Bill passed August, 1972 | Congress overrides Nixon's veto of 1972 Clean Water Act, authorizing $18 billion for sewage treatment plants and collection systems: $5 billion, $6 billion, and $7 billion in fiscal years 1973, 1974, and 1975 respectively. | None | $18 billion | $18 billion |
| **Nixon Administration Actions** | | | | |
| Fiscal 1973 | Releases $2 billion for allocation to states by EPA: $3 billion impounded. | $3 billion | $18 billion | $18 billion |
| Fiscal 1974 | Releases $3 billion for allocation to states by EPA: $3 billion impounded. | $6 billion | $18 billion | $18 billion |
| Fiscal 1975 | Releases $4 billion for allocation to states by EPA: $3 billion impounded. | $9 billion | $18 billion | $18 billion |
| **Court Decisions** | | | | |
| May 1973 | U.S. District Court of Washington, D.C., in a suit brought by the City of New York, rules the President did not have the authority to impound funds for waste treatment facilities. (This was one of eight similar decisions in 1973-74.) | None | $18 billion | $18 billion |
| April 1974 | Supreme Court agrees to hear the Federal Government's appeals of several court cases involving the impoundment of sewage treatment funds. | None | $18 billion | $18 billion |
| February 1975 | Supreme Court upholds lower courts' rulings. (Train vs. City of New York and Train vs. Campaign Clean Water.) | None | $18 billion | $18 billion |
| **Ford Administration Actions** | | | | |
| January 1975 | Releases $4 billion of previously impounded funds for use in fiscal 1976 with implication that remaining $5 billion of impounded funds would be made available for fiscal 1977. | $5 billion | $18 billion | $18 billion |
| February 1975 | Remaining $5 billion of impounded funds officially released for fiscal 1976 in response to Supreme Court ruling. | None | $18 billion | $18 billion |
| **Congressional Actions** | | | | |
| July 1976 | Public Works Employment Act of 1976, of which $700 million was authorized and $480 million was appropriated for Construction Grants Program. | None | $18.70 billion | $18.48 billion |
| May 1977 | $1 billion supplemental funding appropriated for fiscal 1977. | None | $18.70 billion | $19.48 billion |
| December 1977 | 1977 Clean Water Amendments passed by Congress, including Construction Grants Program authorizations (but not appropriations) of $4.5 billion for fiscal 1978 and $5.0 billion each for fiscal years 1979-82, as well as authorization of supplemental funding already appropriated for fiscal 1977. | None | $44.20 billion | $19.48 billion |
| March 1978 | Supplemental appropriation bill including fiscal 1978 funds of $4.5 billion passed by Congress and signed by President Carter. | None | $44.20 billion | $23.98 billion |

ensued, including: the May 1973 ruling by the U.S. District Court of Washington, D.C., that the President did not have the authority to impound funds; the April 1974 pronouncement by the Supreme Court that it would hear the Government's appeal of several lower court cases; and the February 1975 Supreme Court ruling upholding the lower court decisions. These are the events that led up to the Ford Administration's release of the previously impounded $9 billion of funds in two stages, in January and February 1975. By February 1975 the full $18 billion authorized in Public Law (PL) 92-500 were available for use by the EPA in the Construction Grants Program.

In July 1976 Congress passed the Public Works Employment Act of 1976 that authorized $700 million, of which $480 million was appropriated for the Construction Grants Program. In May 1977 Congress appropriated this program an additional $1 billion in supplemental funding for fiscal 1977. These funds were, moreover, appropriated in advance of their actual authorization— an unusual but apparently permissible tactic—in an effort to make the necessary additional funding available. In December 1977 Congress passed and the President signed the 1977 Clean Water Act amendments. This Act included Construction Grants Program authorizations (but not appropriations) of $4.5 billion for fiscal 1978 and $5.0 billion each for fiscal years 1979 through 1982; in addition, authorization of supplemental funding already appropriated for fiscal 1977 was included. The last entry in Table 1 is that of the March 1978 supplemental appropriation bill, including fiscal 1978 funds of $4.5 billion, which also was passed by Congress and signed by President Carter. The last two columns in Table 1 indicate at the bottom that the total authorized funds now stand at $44.20 billion, of which $23.98 billion have in fact been appropriated. The difference, $20.22 billion, represents the $5 billion in authorized but as yet unappropriated funds for each of the fiscal years 1979, 1980, 1981, 1982, and the $220 million of Public Works Employment Act of 1976 authorized funds that have not yet been appropriated.

**Historical Financial Information and Update of the Construction Grants Program**

Historical financial data on the Construction



**Table 2**
**Construction Grants Program:**
**Historical Financial Information**
*(Dollars in millions)*

| | Authorizations | | Appropriations (Allocations) | | Obligations | | Outlays | |
|---|---|---|---|---|---|---|---|---|
| Fiscal Year | PL92-500 | Total | PL92-500 | Total | PL92-500 | Total | PL92-500 | Total |
| 1957-66 Cumulative | – | $ 770 | – | $ 706 | – | $ 669 | – | $ 450 |
| 1967 | – | 150 | – | 150 | – | 131 | – | 85 |
| 1968 | – | 450 | – | 203 | – | 191 | – | 122 |
| 1969 | – | 700 | – | 214 | – | 201 | – | 135 |
| 1970 | – | 1,000 | – | 800 | – | 425 | – | 176 |
| 1971 | – | 1,250 | – | 1,000 | – | 1,152 | – | 478 |
| 1972 | – | 2,000 | – | 2,000 | – | 860 | – | 413 |
| 1973 | $5,000 | 7,000(a) | $2,000 | 3,900(b) | $1,591 | 2,996 | – | 684 |
| 1974 | 6,000 | 6,600(a) | 3,000 | 3,000 | 1,493 | 2,791 | $ 159 | 1,352 |
| 1975 | 7,000 | 7,000 | 4,000 | 4,000 | 3,646 | 4,227 | 874 | 1,938 |
| 1976 | – | – | 9,000 | 9,000 | 4,266 | 4,329 | 1,766 | 2,428 |
| Transition quarter | – | – | – | – | 682 | 688 | 798 | 919 |
| 1977 | – | 1,700(c) | – | 1,980(d) | 6,161 | 7,140 | 2,709 | 3,545 |
| 1978 Year to date(e) | | $4,500 | | $4,500 | | $ 331 | | $1,262 |

Sources: Environmental Protection Agency—Financial Management Division, Municipal Construction Division, Grants Administration Division.
(a) Fiscal 1973 includes $2.0 billion and fiscal 1974 includes $0.6 billion for reimbursable projects under PL93-207.
(b) Includes $1.9 billion for reimbursable allocation.
(c) Includes $1.0 billion of supplemental funds from the Clean Water Act of 1977 (passed May 1977) and $700 million from the Public Works Employment Act of 1976 (passed July 1977).
(d) Includes $1.0 billion from fiscal 1977 supplemental appropriations, $500 million from reimbursable allocations, and $480 million from the Public Works Employment Act of 1976.
(e) Includes October 1977 through February 1978.

Grants Program are presented in Table 2. There are several legislative sources for the funds used to finance the construction of sewage treatment plants. Funding related to the 1972 Clean Water Act, or PL 92-500, is set forth in a separate column under each category indicating the funding stage. The total column in each category listed in the table includes, in addition to the PL 92-500 funds, those funds associated with PL 84-660 (all funding prior to 1972 or associated with this law) and with PL 93-207, which deals with Federal reimbursables to cities for projects already under way.

The Table 2 list documents the authorizations, appropriations (which are subsequently allocated among the states by EPA), obligations, and outlays of construction grants funds since fiscal 1957. The build-up of past obligations, coupled with the higher level of current and projected obligations, indicates increasingly larger annual outlays. Furthermore, developments aimed at expediting the funding process and better matching manufacturers' cash flow with working capital requirements indicate that the funds are likely to be disbursed at a faster rate than in previous years.

Referring again to Table 2, appropriated funds were almost fully obligated between 1957 and 1971. During 1972 EPA experienced a slowdown in construction grants applications because of the pending 1972 Clean Water Act, which increased the share of Federal funding from 55% to 75% (with municipalities and states adding to the balance). During 1973 grant obligations largely caught up with funds available from the prior year. The plateau in 1974 was due primarily to procedural difficulties in processing grant applications because of substantial changes mandated by the new law. These difficulties were to a large degree overcome, as indicated by the obligation of funds level in fiscal 1975 and 1976. Fiscal 1977 experienced a surge in obligations, which reached a total of $7.1 billion, with the PL 92-500 portion at $6.2 billion. This surge was dictated by the cut-off date of September 30, 1977, by which time any unused funds would be reallocated among the states. The month of September 1977, in fact, saw a record level of $2.6 billion of PL 92-500 funds being obligated. By the end of fiscal 1977, therefore, all but less than $200 million of the $18 billion in PL 92-500 funds had been obligated.

Although the outlay figures have also been rising at a dramatic rate, from a total of less than $500 million in fiscal 1972 to a $3.5 billion level in fiscal 1977, these figures still lag far behind the obliga-



**Table 3**
**Construction Grants Program:**
**Obligations and Outlays by Category**
*(Dollars in millions)*

| | 1973 | 1974 | 1975 | 1976 | Transition Quarter | 1977 | 1973-77 Total |
|---|---|---|---|---|---|---|---|
| **Obligations** | | | | | | | |
| PL-84-660 | $1,405 | $ 49 | $ 53 | $ 14 | $ 2 | $ (5) | $ 1,518 |
| PL-93-207 reimbursables | – | 1,249 | 528 | 49 | 4 | 482 | 2,312 |
| PL-92-500 | 1,591 | 1,493 | 3,646 | 4,266 | 682 | 6,161 | 17,839 |
| Public Works Employment Act of 1976 | – | – | – | – | – | 122 | 122 |
| 1977 Supplement | – | – | – | – | – | 380 | 380 |
| Total | $2,996 | $2,791 | $4,227 | $4,329 | $688 | $7,140 | $22,171 |
| **Outlays** | | | | | | | |
| PL-84-660 | $ 684 | $ 717 | $ 642 | $ 508 | $ 92 | $ 195 | $ 2,838 |
| PL-93-207 reimbursables | – | 676 | 422 | 154 | 29 | 640 | 1,921 |
| PL-92-500 | – | 159 | 874 | 1,766 | 798 | 2,709 | 6,306 |
| Public Works Employment Act of 1976 | – | – | – | – | – | – | – |
| 1977 Supplement | – | – | – | – | – | 1 | 1 |
| Total | $ 684 | $1,552 | $1,938 | $2,428 | $ 919 | $3,545 | $11,066 |

Source: Environmental Protection Agency—Financial Management Division.
( ) Parentheses denote negative amount that corresponds to grant adjustments.

tions, as is to be expected. In fact, the PL 92-500 funds disbursed through September 1977 total only $6.3 billion, implying continued substantial growth in outlay of funds. Table 3 and provides a detailed breakdown of the obligations and outlays by various categories in order to give a fuller picture of the real funding momentum. It is the combination of PL 92-500 funds, plus the Public Works Employment Act of 1976, and also including the fiscal 1977 supplemental funds, that will be dictating the rate of outlays for the next several years.

**Update of Logjam Phenomenon**

The rate of obligations of the Construction Grants Program has remained in line with our projections. The rate of outlays, however, has recently begun to fall short of what we had been expecting. It appears that after the obligations are made, the construction of the projects—which would, of course, be required before the outlays could proceed—are moving ahead at a much slower than anticipated pace. In our May 10, 1977, "Environmental Control Industry Topics" report, we described this phenomenon as the Step 3 Funding Logjam.

To reiterate, there are three steps in the funding process under the Construction Grants Program. Step 1, project planning, represents an estimated 1% of the contract value. Step 2, design, represents an estimated 5% to 10% of contract value. Step 3 is the construction grant itself, which represents 80% to 90% of the value. Once Step 3 has been completed, construction of the sewage treatment plant can proceed. The Step 3 Funding Logjam phenomenon—or, more accurately, a preconstruction lag subsequent to the Step 3 funding—is what appears to be an inordinate delay in the construction starts of plants that have been not only planned and designed but have received construction funding approval.

An enumeration of the factors we believe contributed to this logjam along with an updated commentary on the resolution of this problem are contained in Table 4. For example, our analysis last May indicated that the second most important factor contributing to the preconstruction lag was the unwillingness or inability of municipalities to finance projects. There were two explanations given: One, that it was typical for politicians during the major election year such as 1976 to make budget promises that preclude new bond financing for major items such as water pollution control projects. The second and, possibly, more significant explanation was the municipal financing crunch. The



**Table 4**
**Factors Contributing to Preconstruction Lag**

| Typical factors contributing to the preconstruction lag: | Solution: | Comment: |
|---|---|---|
| 1) Competition at the local construction level, causing protests of bids and lawsuits—typically a function of a recession in the construction industry. | Improved economy, causing pickup in nationwide construction activity. | No longer appears to be a major factor. |
| 2) Unwillingness or difficulty in financing at the municipal level because of election-year budget promises or the municipal financing crunch. | Election year over. Assistance available via Federal financing, Bank Loans. | Bond sales strong. Refer to Chart 1 |
| 3) Public Works Employment Act of 1976—municipalities switching applications for Federal financing from the Construction Grants Program to the Public Works Employment Act. | Completion of approvals. | $480 million has been approved, available for obligations and integrated with the Construction Grants Program. |
| 4) Lack of follow-up on funding from Congress affecting as many as 20 states. | Senate and House compromise. | Bill and appropriations have been passed. |
| 5) Other:<br>a) Inflation and escalation of costs dictating redesign by consulting engineers.<br>b) Environmentalists' lawsuits. | | |

Source: Kidder, Peabody & Co. Incorporated.

inability of some large financially strapped municipalities to supply their share, typically 10% to 15%, of the total project cost may well have impeded construction go-aheads for some plants. It was cited, however, that assistance is now available to municipalities via Federal financing of bank loans, in accordance with the loan guarantee amendment to the Federal Water Pollution Control Act (S.3894) signed by President Ford in October 1976.

In our May 1977 report, therefore, we indicated that after the logistics of the loan guarantee amendment were worked out, we anticipated that municipal financing difficulties would not prove to be a major impediment to new construction starts. It appears our analysis was correct. Chart 1 shows state and municipal bond sales for sewage construction since 1972. (The data used in the chart are also in Table 5.) Chart 1 illustrates quite clearly the pick-up in bond sales that began in the third quarter of 1976 and continued throughout 1977. Historical data in Table 4 also indicate that the uncertainties associated with the fundings of the Public Works Employment Act of 1976 and the lack of follow-up on funding from Congress have also been largely resolved.

Consequently, if our analysis last May of the factors contributing to the preconstruction lag was correct, since most of these factors have now been alleviated, then the preconstruction lag should be contracting, with construction starts starting to pick up. Allowing for some normal lead time, this should then be followed by an increase in order rates for suppliers of municipal wastewater treatment equipment. In Table 6, which quantifies the preconstruction lag, the first two columns list the number and total dollar volume of all projects awaiting construction under Step 3 grants. The next two columns present the number and value of Step 3 grant projects that are more than six-month's old. As discussed in our May report, we consider a dollar volume of $1 billion or less to be a normal backlog of projects, which is indicated by the historical pattern from January 1975 through April 1977. From May 1976, when the backlog was just under $1 billion, to February 1977, the dollar volume of the backlog expanded to almost $2 billion. The figure has since declined to $1.2 billion as of February 13, 1978, and is entirely consistent with our analysis of the logjam break-up.

It is also clear from the table that the total number of projects awaiting construction surged from 624 on March 7, 1977, to 1,331 on October 13, 1977, which corresponds with the surge in obligations at the end of fiscal 1977. In parallel, the total dollar volume of projects awaiting construction increased from $2.6 billion on March 7, 1977 to $5.6 billion on October 13, 1977.

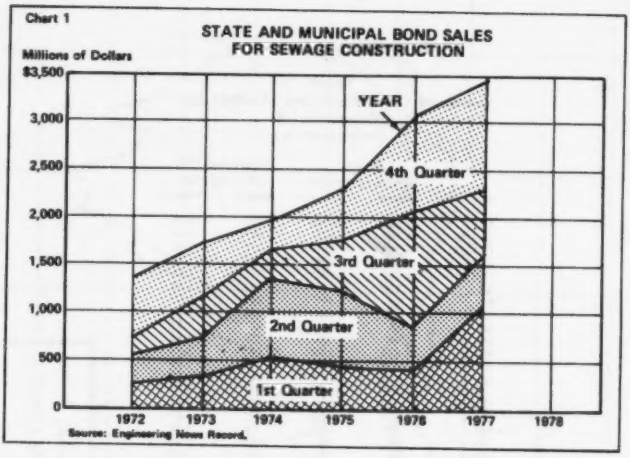
It is gratifying to report that our previous analyses have been relevant. Chart 2 graphically portrays several series of data indicative of sewage treatment plant construction trends. Because of the volatility of the monthly data (see Table 7), an average of the trailing 12-month figures for each series (Table 8) is shown as well. As depicted in the chart, the historical trend is upward in the sewage treatment markets, but that of construction starts had remained on a plateau since the beginning of 1976 up until the final month of 1977, when it began to move upward again. Even more signi-

**Environmental Control Industry**

**Table 5**
**State and Municipal Bond Sales for Sewerage Construction(a)**
*(Dollars in millions)*

| | Quarterly | | Year to Date | |
|---|---|---|---|---|
| | Amount | % Change | Amount | % Change |
| **1972** | | | | |
| First qtr. | $ 287 | | $ 287 | |
| Second qtr. | 303 | | 590 | |
| Third qtr. | 192 | | 782 | |
| Fourth qtr. | 556 | | 1,337 | |
| **1973** | | | | |
| First qtr. | $ 330 | 15.0% | $ 330 | 15.0% |
| Second qtr. | 448 | 47.9 | 778 | 31.9 |
| Third qtr. | 405 | 110.9 | 1,183 | 51.3 |
| Fourth qtr. | 589 | 5.9 | 1,772 | 32.5 |
| **1974** | | | | |
| First qtr. | $ 538 | 63.0% | $ 538 | 63.0% |
| Second qtr. | 807 | 80.1 | 1,345 | 72.9 |
| Third qtr. | 284 | (29.9) | 1,629 | 37.7 |
| Fourth qtr. | 351 | (40.4) | 1,981 | 11.8 |
| **1975** | | | | |
| First qtr. | $ 484 | (10.0)% | $ 484 | (10.0)% |
| Second qtr. | 769 | (4.7) | 1,253 | (6.8) |
| Third qtr. | 539 | 89.8 | 1,792 | 10.0 |
| Fourth qtr. | 516 | 47.0 | 2,308 | 16.5 |
| **1976** | | | | |
| First qtr. | $ 418 | (13.6)% | $ 418 | (13.6)% |
| Second qtr. | 468 | (39.1) | 887 | (29.2) |
| Third qtr. | 1,178 | 118.6 | 2,064 | 15.2 |
| Fourth qtr. | 971 | 88.2 | 3,035 | 31.5 |
| **1977** | | | | |
| First qtr. | $1,087 | 160.0% | $1,087 | 160.0% |
| Second qtr. | 584 | 24.8 | 1,671 | 88.4 |
| Third qtr. | 639 | (45.8) | 2,310 | 11.9 |
| Fourth qtr. | 1,154 | 18.8 | 3,464 | 14.1 |

Source: *Engineering News Record.*
(a) Data include only offerings in excess of $5 million and those described as financing for sewerage or pollution control projects.
( ) Parentheses denote decline.




ficantly than the construction start pattern itself is the bidding volume line, which we believe is a lead indicator of the trend in construction starts. In mid-1977, for example, bidding volume actually crossed above the construction start number, and has since continued its dramatic upward trend.

In summary, the phenomenon that we have called the Step 3 Funding Logjam had been adversely affecting the construction start pattern. Based on the current analysis, we anticipate an increasingly high level of construction starts for the next several months of 1978, which should result in a pick-up in the order rate for equipment suppliers mid-year. Consequently, in the latter part of 1978 we can anticipate an improvement in the shipment rate. The principal environmental control industry participants are listed in matrix form in Appendix 1. The firms most likely to benefit from the projected trends in the municipal wastewater market, as determined by the use of Appendix 1, are: Envirotech Corporation (29), General Signal Corporation (28), Neptune International (21), and Peabody International Corporation (25). The market performance of environmental control stocks, as indicated by the Kidder, Peabody Environmental Control Index, is set forth in Appendix 2.

**Legislative Update: 1977 Clean Water Act Amendments**

Appendix 3 contains a summary of all significant sections of the Clean Water Act of 1977. The part of Section 201 describing grants for innovative and alternative technology is noteworthy in that, for the first time, treatment works are encouraged to utilize alternative and innovative technologies that may reduce capital or operating costs and energy costs or improve reliability. The Federal funding portion of such projects would be increased to 85% from the typical 75%.

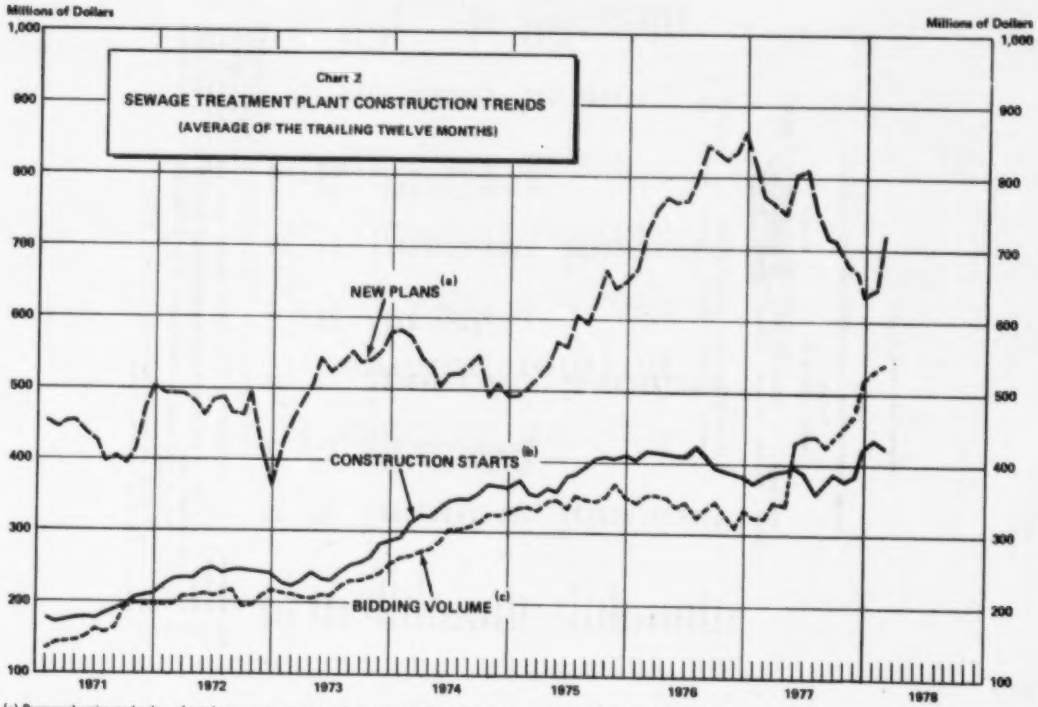
The Combined Grants (Section 203) provides for

## Environmental Control Industry

### Table 6
### Construction Grants Program—Step 3 Funding Logjam
### Preconstruction Lags
*(Dollars in billions)*

| Date | Projects Awaiting Construction | | Those More Than Six Months Old | |
|---|---|---|---|---|
| | Number | Volume | Number | Volume |
| 2/13 | 1,087 | $4.00 | 274 | $1.19 |
| 1/11/78 | 1,147 | 4.50 | 287 | 1.46 |
| 12/12/77 | 1,218 | 5.10 | 252 | 1.42 |
| 11/8 | 1,286 | 5.30 | 293 | 1.45 |
| 10/13 | 1,331 | 5.60 | 323 | 1.63 |
| 9/8 | 803 | 3.50 | 245 | 1.48 |
| 8/9 | NA | NA | 263 | 1.62 |
| 7/13 | NA | NA | 260 | 1.54 |
| 6/8 | NA | NA | 256 | 1.37 |
| 5/5 | NA | NA | 291 | 1.53 |
| 4/6 | 638 | 2.70 | 281 | 1.73 |
| 3/7 | 624 | 2.60 | 291 | 1.79 |
| 2/4 | 620 | 2.79 | 303 | 1.95 |
| 1/10/77 | 576 | 2.50 | 306 | 1.70 |
| 12/6/76 | 622 | 2.99 | 223 | 1.15 |
| 10/14 | 671 | 3.38 | 215 | 1.24 |
| 9/9 | 647 | 3.50 | 226 | 1.35 |
| 7/31 | NA | NA | 233 | 1.30 |
| 6/30 | NA | NA | 214 | 1.21 |
| 5/31 | NA | NA | 153 | 0.99 |
| 4/30 | NA | NA | 139 | 0.85 |
| 3/31 | NA | NA | 143 | 0.83 |
| 2/29 | NA | NA | 143 | 0.92 |
| 1/31/76 | NA | NA | 142 | 0.99 |
| 12/31/75 | NA | NA | 170 | 1.21 |
| 11/30 | NA | NA | 94 | 0.55 |
| 10/31 | NA | NA | 87 | 0.24 |
| 9/30 | NA | NA | 87 | 0.28 |
| 8/31 | NA | NA | 89 | 0.26 |
| 7/31 | NA | NA | 91 | 0.30 |
| 6/30 | NA | NA | 95 | 0.41 |
| 5/31 | NA | NA | 129 | 0.49 |
| 4/31 | NA | NA | 128 | 0.49 |
| 3/31 | NA | NA | 134 | 0.55 |
| 2/28 | NA | NA | 154 | 0.67 |
| 1/31/75 | NA | NA | 163 | 0.80 |

Source: Environmental Protection Agency—Kidder, Peabody & Co. Incorporated composite.
NA Not available.




(a) Proposed estimated value of total sewage treatment projects entering the design stage, recorded by *Engineering News Record.*
(b) Contract value of sewage and waste disposal projects at or within 60 days of construction start *(Dodge Construction Potentials).*
(c) Value of contracts of total sewage treatment projects as of the contract award, recorded by *Engineering News Record.*

## Environmental Control Industry

### Table 7
### Sewage Treatment Plant Construction Trends
### Monthly
*(Dollars in millions)*

| | New Plans(a) | | Bidding Volume(b) | | Construction Starts(c) | |
|---|---|---|---|---|---|---|
| | Amount | % Change | Amount | % Change | Amount | % Change |
| **1976** | | | | | | |
| January | $ 1,284 | | $ 208 | | $ 285 | |
| February | 1,253 | | 301 | | 352 | |
| March | 838 | | 229 | | 350 | |
| April | 735 | | 326 | | 371 | |
| May | 729 | | 270 | | 361 | |
| June | 484 | | 363 | | 544 | |
| July | 1,177 | | 312 | | 612 | |
| August | 962 | | 474 | | 321 | |
| September | 650 | | 352 | | 339 | |
| October | 849 | | 276 | | 470 | |
| November | 611 | | 347 | | 295 | |
| December | 789 | | 420 | | 294 | |
| Total | $10,359 | | $3,878 | | $4,594 | |
| **1977** | | | | | | |
| January | $ 701 | (45.4)% | $ 213 | 2.4% | $ 257 | (9.8)% |
| February | 735 | (41.3) | 305 | 1.3 | 421 | 19.9 |
| March | 731 | (12.8) | 486 | 112.2 | 419 | 19.7 |
| April | 578 | (21.4) | 288 | (11.7) | 438 | 18.1 |
| May | 1,356 | 86.0 | 1,314 | 386.7 | 416 | 15.2 |
| June | 587 | 21.3 | 439 | 20.9 | 478 | (12.1) |
| July | 494 | (58.0) | 316 | 1.3 | 273 | (55.4) |
| August | 507 | (47.3) | 364 | (23.2) | 510 | 58.9 |
| September | 598 | (8.0) | 497 | 41.1 | 396 | 16.8 |
| October | 475 | (44.1) | 488 | 76.8 | 367 | (21.9) |
| November | 462 | (24.4) | 570 | 64.3 | 368 | 24.7 |
| December | 390 | (50.6) | 975 | 132.1 | 651 | 121.4 |
| Total | $ 7,614 | (26.5)% | $6,255 | 61.3% | $4,994 | 8.7% |
| **1978** | | | | | | |
| January | $ 818 | 16.7% | $ 379 | 77.9% | $ 478 | 86.4% |
| February | 1,687 | 129.5 | 375 | 23.0 | 311 | (26.2)% |
| **Year to date** | | | | | | |
| 1977 | $ 1,436 | | $ 518 | | $ 678 | |
| 1978 | 2,505 | 74.7% | 754 | 45.6% | 789 | 16.4% |

Note: Numbers may not add to totals because of rounding.

( ) Parentheses denote decline.

(a) Proposed estimated value of total sewage treatment projects entering the design stage—*Engineering News Record.*

(b) Value of contracts of total sewage treatment projects as of the contract award—*Engineering News Record.*

(c) Contract value of sewage and waste disposal projects at or within 60 days of construction start—*Dodge Construction Potentials.*

## Environmental Control Industry

### Table 8
### Sewage Treatment Plant Construction Trends
### Trailing 12-Month Average
*(Dollars in millions)*

| | New Plans(a) | | Bidding Volume(b) | | Construction Starts(c) | |
|---|---|---|---|---|---|---|
| | Amount | % Change | Amount | % Change | Amount | % Change |
| **1976** | | | | | | |
| January | $674 | 36.2% | $343 | 3.0% | $405 | 8.0% |
| February | 725 | 43.8 | 353 | 5.3 | 417 | 17.5 |
| March | 753 | 45.4 | 356 | 6.9 | 416 | 17.5 |
| April | 772 | 43.5 | 352 | 2.6 | 411 | 12.9 |
| May | 766 | 33.9 | 340 | (1.4) | 412 | 14.4 |
| June | 767 | 35.3 | 346 | 3.0 | 410 | 7.6 |
| July | 796 | 31.4 | 326 | (7.4) | 425 | 11.0 |
| August | 845 | 42.3 | 336 | (3.2) | 406 | 2.5 |
| September | 838 | 33.4 | 345 | 0.3 | 391 | (3.5) |
| October | 829 | 23.5 | 327 | (6.6) | 389 | (4.9) |
| November | 837 | 29.4 | 309 | (16.7) | 388 | (4.0) |
| December | 863 | 32.2 | 323 | (8.2) | 383 | (6.8) |
| **1977** | | | | | | |
| January | $815 | 20.9% | $324 | (5.5)% | $380 | (6.2)% |
| February | 772 | 6.5 | 324 | (8.2) | 386 | (7.4) |
| March | 763 | 1.3 | 345 | (3.1) | 392 | (5.8) |
| April | 750 | (2.8) | 342 | (2.8) | 398 | (3.2) |
| May | 802 | 4.7 | 429 | 26.2 | 402 | (2.4) |
| June | 810 | 5.6 | 436 | 26.0 | 397 | (3.2) |
| July | 753 | (5.4) | 436 | 33.7 | 369 | (13.1) |
| August | 716 | (15.3) | 427 | 27.1 | 384 | (5.4) |
| September | 711 | (15.2) | 439 | 27.2 | 389 | (0.5) |
| October | 680 | (18.0) | 456 | 39.4 | 380 | (2.3) |
| November | 668 | (20.2) | 475 | 53.7 | 386 | (0.5) |
| December | 635 | (26.4) | 521 | 61.3 | 416 | 8.6 |
| **1978** | | | | | | |
| January | $644 | (21.0)% | $535 | 65.1% | $435 | 14.2% |
| February | 724 | ( 6.2) | 541 | 67.0 | 425 | 10.1 |

( ) Parentheses denote decline.
(a) Proposed estimated value of total sewage treatment projects entering the design stage—*Engineering News Record.*
(b) Value of contracts of total sewage treatment projects as of the contract award—*Engineering News Record.*
(c) Contract value of sewage and waste disposal projects at or within 60 days of construction start—*Dodge Construction Potentials.*



63-935 O—80——4

the combination of Step 2 and Step 3 grant obligations for smaller projects, in an effort to reduce delays.

The construction grant authorizations of $4.5 billion for fiscal 1978 and $5 billion annually through fiscal 1982 are found in Section 207.

Municipal time extensions are found in Section 301 of the Act, where extension of the July 1, 1977, municipal secondary treatment requirement may be made on a case-by-case basis up to July 1, 1983.

The EPA is provided with three enforcement options for violations of the 1977 best practicable technology requirements for industrial discharges. Found under Section 309, these include 1) enforcement orders; 2) extension to April 1, 1979, where good faith, serious commitment, construction under way, and application for a permit filed before 1975 exist, or 3) the EPA may require a violator to discharge into a publicly owned treatment works (POTW) where that publicly owned works will be completed by July 1, 1983.

**Jeffrey A. Klein (212) 747-3030**
**Laurie Doane, Research Assistant**

Environmental Control Industry

Appendix 1

## PRINCIPAL ENVIRONMENTAL CONTROL INDUSTRY PARTICIPANTS(a)

★ Major participation
● Minor participation
▲ KP intensive coverage

| | AIR | | | | | | | | WATER | | | | SOLID | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PARTICULATE: ESP, WS, MC (b) | PF (c) | COKE OVEN EMISSIONS | SULFUR DIOXIDE | COMBUSTION | MUNICIPAL | INDUSTRIAL | THERMAL | SPECIALTY CHEMICALS | LIQUIDS/GASES HANDLING | SERVICES | EQUIPMENT | ENERGY RECYCLING/RECOVERY | ENERGY SERVICES | OTHER BUSINESS EXPOSURE |
| ▲ BROWNING FERRIS INDUSTRIES | | | | | | | | | | ★ | ★ | | ★ | | |
| ▲ WASTE MANAGEMENT | | | | | | | | | | ★ | ★ | | ★ | | |
| AMERICAN AIR FILTER | ★ | ★ | ● | ★ | | | | | | | | | | | *Air-Conditioning and Filtration* |
| COMBUSTION EQUIPMENT ASSOCIATES | ★ | ● | | ★ | ★ | | | | | | | | ★ | | *Agri-Equipment* |
| ▲ ENVIROTECH | ★ | ● | ★ | ★ | | ★ | ★ | | | | | ● | ● | | *Mining Equipment* |
| ▲ GENERAL SIGNAL | | | | | | ★ | ★ | | ● | | | | | | *Controls and Instruments - Transportation* |
| MARLEY | | | | | | | | ★ | | | | | | | *Heat Exchangers, Underground Water Resources Engineering Services & Equipment* |
| NEPTUNE INTERNATIONAL | | | | | | ★ | ★ | | | | | | | | *Fluid-Measuring Meters* |
| ▲ PEABODY INTL. | ● | ● | | ★ | ★ | ★ | ● | | | | | ★ | ● | ★ | *Consulting Engineering, Tall Chimneys* |
| RESEARCH-COTTRELL | ★ | ● | | ★ | | | | ★ | | | | | ● | | *Consulting Engineering, Tall Chimneys* |
| U.S. FILTER | ● | ● | ● | ● | | | ● | | ★ | | | | | | *Consulting Engineering, Petroleum Catalysts* |
| WHEELABRATOR-FRYE | ★ | ★ | | | | | | | | | | | ★ | | *Consulting Engineering, Tall Chimneys, Specialty Inks, Carbon Papers* |
| ZURN | ● | ● | | ● | | ● | ● | ★ | | | | | | | *Power Generation Systems, Leisure Products* |

Source: Kidder, Peabody & Co. Incorporated estimates.

(a) The list is not all-inclusive:

1) Companies with meaningful industry position but whose participation in these markets is not a major source of investor interest are not included (for example, Carborundum, Dorr-Oliver, Rexnord, and Sybron in water, Carborundum, Dresser Industries, Joy Manufacturing, and Koppers in air).

2) Companies not meeting size (sales or capitalization) criteria, even though investor interest may result principally from participation in these markets, are also excluded (such as Ecodyne in water; Belco Pollution Control and Standard Havens in air; and Waste Resources in solid waste management services).

(b) Electrostatic precipitators, wet scrubbers, mechanical collectors.

(c) Fabric filters.

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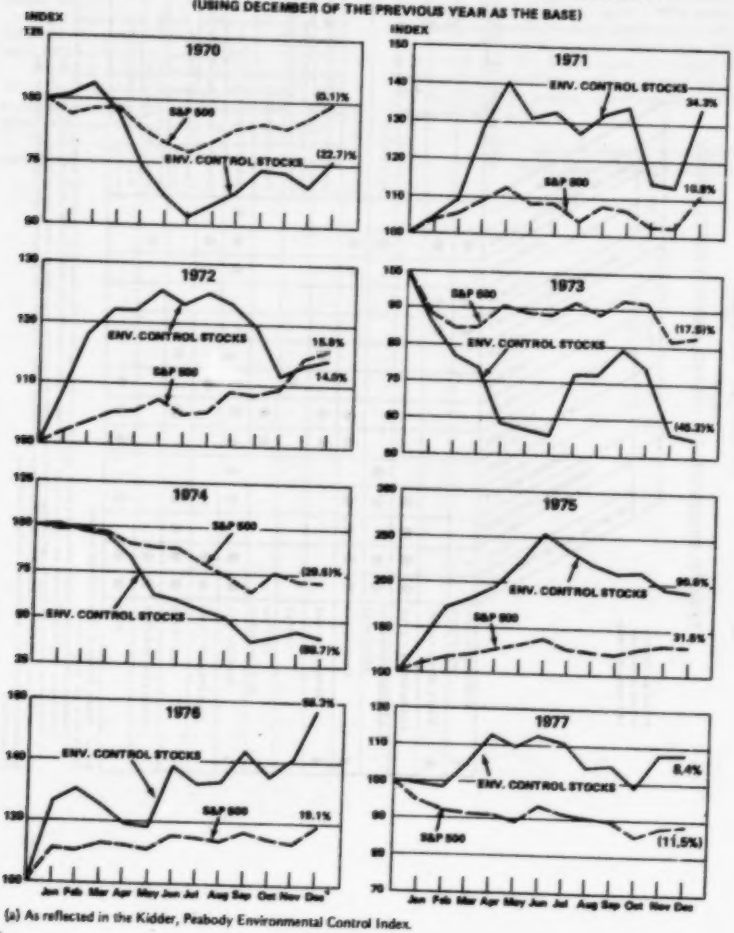
Incorporated

Environmental Control Industry
Appendix 2

## MARKET PERFORMANCE OF ENVIRONMENTAL CONTROL STOCKS (a)

(USING DECEMBER OF THE PREVIOUS YEAR AS THE BASE)




(a) As reflected in the Kidder, Peabody Environmental Control Index.

**Environmental Control Industry**

**Appendix 3**

**Clean Water Act of 1977**
**Summary of Provisions**

**Authorization Extensions**
(for each fiscal year)
Manpower Training:
$3 million for each of FY 78-80
Manpower Forecasting:
$1.5 million for each of FY 78-80
State Program Grants:
$100 million for each of FY 78-80
Training Grants & Scholarships:
$7 million for each of FY 78 & 79
Section 208 Areawide Plans:
$150 million for each of FY 77-80
Section 517 General Authorization:
$150 million for each of FY 78-80

**State Jurisdictions (Water Rights)** (Section 101)
Assures State authority to allocate rights to quantities of water. EPA, consulting with River Basin Commissions, shall submit a report by 7/1/78 on relationship of Clean Water Act and State and Federal water allocation programs.

**Estuarine Study** (Section 104)
Every 6 instead of 3 years.

**Clearinghouse for Alternative Treatment Information** (Section 104)
EPA required to establish.

**Assistance for R&D Projects** (Section 105)
Grants for reducing operation and maintenance costs of previously funded R&D projects, where excessive.

**Training Grants** (Section 109)
Increases grants for training facilities from $250,000 to $500,000.

**Rural Village Study** (Section 113)
Study for development of a comprehensive program for adequate sanitation services in Alaskan Villages.

**Grants for Innovative and Alternative Technology** Section (201)
Treatment works are encouraged that utilize alternative and innovative technologies. 15% credit allowed over most cost-effective conventional alternatives. EPA to issue guidelines within 180 days of enactment. 2% of State allotment in FY 79 and FY 80, and 3% in FY 81 set aside to increase grants from 75% to 85% for projects that utilize innovative and alternative processes and technologies. One-half of 1% must be spent for innovative processes.

**Recreation and Open Spaces** (Section 201)
Beginning in FY 79, applicant must show that potential recreation and open space opportunities have been analyzed.

**Individual Systems** (Section 201)
Grants for privately-owned treatment works allowed where a public body applies for a number of such units and assures proper operation & maintenance, and the works are more cost-effective than collection and central treatment works. Limited to existing primary residences and small commercial establishments. User charges are required and commercial user must pay back their attributable Federal costs.

**Energy Requirements** (Section 201)
Energy conservation management methods, processes, and techniques are encouraged.

**Combined Grants** (Section 203)
Award of combined Step 2 and Step 3 grant authorized for projects costing less than $2 million for population of 25,000 or less. In States with unusually high construction costs, cost limit may be increased to $3 million.

**Contract Enforcement** (Section 203)
At request of grantee, EPA is authorized to provide legal and technical assistance in the administration and enforcement of any contract under the grant, and to intervene in any civil action involving the enforcement of such a contract.

**Reserve Capacity** (Section 204)
Determining reserve capacity includes taking into account efforts to reduce flow of sewage and unnecessary water consumption, and projected population and commercial and industrial establishments identified in an approved facility plan, 208 plan, or an applicable municipal master plan of development.

**User Charges** (Section 204)
Existing ad valorem user charge system allowed for residential user class and small non-residential user if revenue is dedicated, O&M charges are proportionality distributed between classes, and ICR system requirement is met. A non-metering residential system may be approved, including an ad valorem system, if revenues are dedicated, and users are notified of their proportionate charge to costs of waste treatment services, and proportionality is maintained both within and between classes.

**Industrial Cost Recovery** (Section 204)
Small dischargers with flow rate of 25,000 gpd of sanitary wastes or less, exempted from ICR if treatment works not interfered with. Grantee prior to 12/27/77 may reduce ICR in proportion to industrial reduction of flow of sewage of water consumption. ICR payments suspended for 18 months while 12-months study of ICR takes place. Systemwide ICR allowed.

**Allotment** (Section 205)
Table provided for allotment formula and floor of ½ of 1%.

**State Management Assistance** (Section 205)
EPA may reserve 2%, or $400,000, whichever is greater, of each State's allotment for grants for State administration of the construction grants program (Sect. 201, 203, 204 and 212 of the Act.) If all of 2% not used, grants may be made for State costs of administering Sect. 402, 404, 208 and managing grants for small communities.

**Set-Aside for Alternative and Unconventional Systems for Small Communities** (Section 205)
For FY 79 and thereafter, rural States shall have 4% of allotment set aside for alternative and unconventional systems for places of 3,500 population or less, or for highly dispersed areas of larger communities.

**Reimbursement and Advanced Construction Grants** (Section 206)
Treatment works given PL 84-660 grants on which actual construction was initiated between 7/1/72 and 6/30/73 may be increased to 50-55%.

**Construction Grant Authorizations** (Section 207)
Authorizes $4.5 billion for FY 78, and $5 billion annually through FY 82, and an additional $75 million for each of FY 78-81 to provide a floor of 1/2 of 1% of the total allotment for any State.

**Areawide Planning** (Section 208)
Any 208 agency that received its first grant before 10/1/77 shall receive a 100% grant for the first two years. Three years is allowed for submission of initial plan.

**Irrigation Return Flows** (Section 208)
Irrigation return flows dropped from point source definition and permits not required except if State wishes. Such flows included under 208.

**Agricultural Cost Sharing** (Section 208)
New program for Dept. of Agriculture to provide up to 50% grant assistance for owners to install best management practices for long-term soil conservation to improve water quality by reducing run-off.

**Grant Eligible Categories** (Section 211)
Population density allowed for test for eligibility of collector sewer only for purpose of evaluating alternatives and determining needs for such system in relation to ground or surface water quality impact. No grants allowed for treatment works to control pollutant discharges from separate storm sewer systems.

**Wastewater Storage** (Section 212)
Eligibilities include land used for the storage of treated wastewater in land treatment systems prior to land application.

**Public Information Program** (Section 214)
EPA shall develop and operate within one year of 12/27/77, a continuing program of public information and education on recycling and reuse of wastewater (including sludge), land treatment, and water conservation.

**Buy America** (Section 215)
Construction grant funds are to be used for only American-made products unless EPA determines that this is inconsistent with Agency resources to enforce and is not inconsistent with the public interest, cost is unreasonable, or products are not reasonably commercially available.

**Determination of Priority** (Section 216)
States have sole authority for priority of each category of projects, unless EPA, after opportunity for public hearing, determines that certain projects will not contribute to enforceable requirements of the Act. At least 25% of funds allocated to State shall be for pipe-related projects if State puts them on priority list and they are otherwise eligible.

**Cost-Effectiveness Guidelines** (Section 217)
EPA's cost-effectiveness guidelines must meet the objectives and goals of the Act, in the identification and selection of cost-effective alternatives. This section shall not apply to collectors.

**Modification of Secondary Treatment Requirement** (Section 301)
Secondary treatment requirement for POTW marine discharges may be waived if eight criteria are met.

**Municipal Time Extensions** (Section 301)
Extension of 7/1/77 municipal secondary treatment requirement may be made on case-by-case basis up to 7/1/83 if municipality applies within 180 days from 12/27/77.

**Procedure for Modification** (Section 301)
To obtain secondary treatment modification for POTW or BAT modification for non-conventional pollutants, applications must be filed within 9 months of 12/27/77, and not pose public health hazard.

**Innovative Technology** (Section 301)
BAT requirement for sources utilizing innovative technology is extended to 7/1/87 if it will achieve greater pollutant reduction and reduced costs.

**Information and Guidelines** (Section 304)
90 days after 12/27/77, EPA shall publish information identifying conventional pollutants; 6 months after 12/27/77 factors necessary to protect public water supplies; 3 months after 12/27/77 Federal and State water quality standards and the pollutants and water bodies to which they apply, and degree of effluent reduction attainable through best pollutant control technology (BCPCT).

**Best Management Practices for Industry** (Section 304)
EPA is to publish regulations for controlling ancillary industrial activities which contribute toxic pollutants to navigable waters.

**Interagency Agreements** (Section 304)
Authorizes $100 million for each fiscal year through 1983 for other Federal agencies to help maintain water quality through implementation of the Act.

**State Reports** (Section 305)
Requires State water quality inventory report to be submitted biannually in lieu of present annual requirement. Next report 4/1/78

**Toxic, Conventional, and Non-Conventional Pollutant Effluents, and Modification of BAT Requirements** (Section 307)
Toxic pollutants are subject to BAT economically achieveable no later than 7/1/84. Factors to be considered for establishing effluent standards and listing are specified. Effluent limitations for 307 pollutants must be met in one year of publication unless technologically infeasible whereupon within three years.
Nonconventional pollutants must comply with BAT effluent limitations 3 years after established or not later than 7/1/84, whichever is later, but in no case later than 7/1/87. Discharger of nonconventional pollutants may apply for modification if modification will not interfere with requirements listed in ammendment.
Conventional pollutants shall achieve their effluent limitation no later than 7/1/84 at the level of best conventional pollutant control technology (BCPT), which will normally be less than BAT. EPA, within 90 days of 12/27/77, is to review all final or interim final guidelines already promulgated to apply the new test.

**Pretreatment** (Section 307)
Provides for modification of national toxic pretreatment standard if joint POTW/industry treatment will meet direct discharge requirements, and not interfere with sludge disposal. EPA or NPDES State may require local compliance programs to enforce pretreatment standards. EPA shall publish, within one year of 12/27/77, regulations providing guidelines for disposal and utilization of sludge.

**1977 Deadlines** (Section 309)
Provides EPA with 3 enforcement options for violations of 1977 best practicable technology requirements for industrial discharges. These are (1) Enforcement orders, (2) Extension to 4/1/79 where good-faith serious commitment, construction underway, and application for a permit filed before 1975, or (3) Require violator to discharge into POTW where POTW will be completed by 7/1/83.

**Mitigation Costs** (Section 311)
EPA may assess penalty for discharge of a hazardous substance and also act to mitigate the damage to the public health or welfare caused by such a discharge.

**Oil Spill Liability** (Section 311)
Extends liability and cleanup authority to vessels out to 200 miles and allows use of 311(k) funds when there is a substantial threat of a discharge. Liability limits are generally raised.

**Marine Sanitation Devices** (Section 312)
Prohibits discharge of untreated sewage and greywater from commercial vessels on the Great Lakes. Greywater is defined as galley, bath, or shower water. Upon application of a State, discharge of sewage from vessels shall be prohibited in drinking water intake zones.

**Federal Facilities Compliance** (Section 313)
Assures that all Federal activities comply with all procedural and substantive Federal, State and interstate requirements and exemption from compliance for military activities is available to the President.

**Federal Facilities** (Section 313)
EPA shall coordinate with other Federal agencies to develop programs for utilizing wastewater innovative processes and techniques for Federally-owned facilities.

**Clean Lakes** (Section 314)
EPA to provide financial assistance to States to prepare surveys on freshwater lakes and issue information on methods and procedures to restore and enhance freshwater lakes. $60 million authorized annually for FY 1978 to FY 1980.

**Aquaculture** (Section 318)
EPA is authorized, after public hearings, to permit discharge of pollutants under controlled conditions associated with approved aquaculture projects, comparable to 402 permits. EPA is to publish regulations for State assumption of program.

**Compliance With State Requirements** (Section 401)
States must certify compliance with Section 303 (Water Quality Standards) before a Federal license or permit can be issued.

**EPA Issuance of Permits** (Section 402)
If EPA objects to a permit issued by a State, the State is entitled to a hearing. State has 30 days to comply with EPA objection (or 90 days if no hearing requested, whereupon EPA may issue a permit if no compliance).

**Enforcement of Municipal Permits** (Section 402)
Where a State fails to enforce a permit, EPA may do so where there is a discharge in a POTW.

**Permits for Dredged or Fill Material** (Section 404)
Normal farming, silviculture, and ranching activities exempted from 404 permit regulation. Corps of Engineers may issue general permits for a category of activities where minimal adverse environmental effects are expected. States, if qualified, may operate the 404 program similarly to the 402 permit program. If EPA objects to a permit, the State may request a hearing similar to the 402 program, and EPA may issue the permit. Many activities can be included under a 208 best management practices program. Federal activities specifically authorized by Congress may be exempted from the 404 permit if they file an environmental impact statement prior to authorization or appropriation.

**Sludge Disposal** (Section 405)
Permits for disposal of sludge under 405 must be consistent with 402 permits.

**Emergency** (Section 504)
A $10 million emergency fund is to be maintained to provide assistance in an environmental emergency.

**Combined Sewer Overflows** (Section 516)
A study is required of EPA by 10/1/78 on combined sewer overflows in POTWs.

**Utilization of Treated Sludge** (Section 516)
EPA shall submit a study by 10/1/78 on the current and potential utilization of municipal wastewater and sludge.

**Water Supply-Wastewater Treatment Coordination** (Section 516)
Within 2 years of 12/27/77, EPA is to submit a study on coordination of water supply and wastewater control plans as a condition to construction grants.

**Seafood Processing Study**
A study is required of EPA by 1/1/79 on the effects of seafood processes which dispose of untreated natural wastes into marine waters.

**Lake Chelan Delegation**
Corps of Engineers is authorized to delegate 404 responsibilities to State of Washington in regard to Lake Chelan.

**Secondary Treatment Facility Site**
The construction of a secondary treatment plant at Deer Island, Massachusetts is authorized on property that is now a correctional facility. $15 million is authorized to construct a new correctional facility elsewhere.

**Total Treatment System Funding**
An amendment passed outside of HR 3199 provides reimbursement for a collection system in Derry Township, Pennsylvania.

**Rum Industry**
A study is to be completed by EPA by 1/1/79 on the effects of the disposal of certain natural untreated wastes that are by-products of rum distilleries.

The Research Department

Kidder, Peabody & Co.
INCORPORATED

May 10, 1977

# Environmental Control Industry Topics

- Differing trends in segments of the air and water pollution control markets suggest an investment strategy favoring water over air.
- Industry conference provides up-to-date cost/benefit analyses and a preview of Carter Administration policies.
- Order rates for municipal wastewater equipment, currently depressed by the Step 3 Funding Logjam, are expected to pick up later this year.
- Analysis of earnings trends and valuation data indicates that selected environmental control stocks are likely to continue to outperform the market.

This report initiates Kidder, Peabody's *Environment Control Industry Topics*—providing timely information on and insight into industry and company developments; perspective on evolving issues in environmental- and energy-related areas; and technical and legislative updates.

## *Industry Follow-Up*

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**All stock prices in this report are as of April 29, 1977, unless otherwise noted.**


*The information contained in this report has been taken from trade and statistical services and other sources which we deem reliable. We do not represent that it is accurate or complete and it should not be relied upon as such. Any opinions expressed herein reflect our judgment at this date and are subject to change.*

*Additional information on the securities mentioned is available.*

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## REVIEW

This report contains four sections. The first explains our investment posture toward segments of the air and water pollution control equipment markets. Two considerations, in our opinion, should dominate selection of investment vehicles in the industry—the ability of the company to capitalize on the trend toward greater integration of pollution control equipment into industrial process design and a business mix weighted more in favor of water than of air pollution control. The first-named characteristic is crucial for a company planning well beyond the current three-to-five-year horizon, to a period when utilization of pollution control systems will be dictated more by economic incentives than by legislative requirements alone. The second specification results from our judgment that water has greater investment attraction than air for three reasons: a higher expected growth rate over the 1976-80 period; a lesser year-to-year volatility of sales and earnings; and a higher probability of more consistently favorable publicity. Thus, despite some near-term order-rate uncertainties because of the delayed upturn in capital spending (affecting the industrial wastewater equipment market) and a temporary logjam in construction starts for sewage treatment plants (affecting the municipal wastewater equipment market), water pollution control equipment is the more attractive segment of the industry—with a projected least-squares revenue growth rate through 1980 of 24%.

The air pollution control markets appear less attractive—with an appreciably lower projected growth rate and higher risk associated with larger, more construction-intensive projects. However, a relatively new and potentially attractive area is developing that offers the prospects of high growth, proprietary products and limited competition. This area, coke oven emission control systems, is not included in our aggregate growth projections. Furthermore, favorable psychological factors associated with anticipation of increased U.S. coal utilization could heighten investor interest. Even so, expected stock volatility, coupled with fundamental uncertainty about the timing of actual increases in coal output, could indicate as a source-of-funds candidate any company too dependent on coal-related air pollution control equipment markets.

In summary, our investment strategy, as detailed in the report in a series of charts and matrices, is to concentrate on companies with a heavy proportion of market mix in water areas, a place in the developing coke oven emission control market, and strong but limited (as a percentage of corporate operations) participation in the coal-related areas of particulate and $SO_2$ control. This approach should maximize exposure to the fundamentally attractive areas of the environmental control industry and limit exposure to the higher-risk, more volatile areas.

The second section of the report reviews a recent Economic Growth with Environmental Quality conference in Washington, D.C. Presentations at the conference reported recent economic cost/benefit and environmental control industry studies and provided an initial glimpse of the inclinations of the Carter Administration.

The third section updates information about the sewage treatment plant construction funding program, spells out our assumptions and market projections through 1982, and analyzes reasons for the temporary logjam in new construction starts that is affecting equipment order rates. The fourth section presents our earnings review table for some of the companies in this industry, with preliminary 1978 earnings estimates and current Kidder, Peabody Equity Valuation Model data.

## INVESTMENT STRATEGY

In aggregate, the markets for air and water pollution control equipment are likely to continue to increase in size and profitability. (These markets were defined and forecasted in the Kidder, Peabody Industry Analysis dated March 16, 1976. Significant structural changes affecting profitability within the industry were discussed in our *Industry Follow-Up* of February 1977.) The size of these markets is expected to roughly double by the end of 1980—from $1.8 billion in 1976 to $3.4 billion in 1980—a least-squares growth rate of 17%. Annual projections through 1980 for these markets are shown in Table 1, which presents an updated and more detailed version of the data provided in the 1976 report. Interpretation of the data in Table 1 weighs heavily in determining our investment posture toward segments of the air and water pollution control equipment markets.

Several trends are immediately apparent from examination of the data in Table 1. First of all, for the combined air and water pollution control markets a least-squares growth rate of 17% from 1976 through 1980 is indicated. However, the growth rate for the wastewater pollution control area is projected to be 24% during this period compared with only 6% for the air pollution control area. Furthermore, the

Table 1

**Environmental Control Industry Topics**
**Selected Environmental Control Markets Summary(E)**
*(Dollars in millions)*

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | Least-Squares Growth Rate 1974-80 | Least-Squares Growth Rate 1976-80 |
|---|---|---|---|---|---|---|---|---|---|
| Air pollution control(a) | | | | | | | | | |
| Flange-to-flange | $ 310 | $ 395 | $ 431 | $ 407 | $ 407 | $ 465 | $ 526 | | |
| Related construction and auxiliary | 250 | 320 | 354 | 333 | 333 | 380 | 434 | | |
| Total | $ 560 | $ 715 | $ 785 | $ 740 | $ 740 | $ 845 | $ 960 | 7.0% | 5.5% |
| Year-to-year % change | NA | 27.7% | 9.8% | (5.7)% | — | 14.2% | 13.0% | | |
| Wastewater pollution control | | | | | | | | | |
| Municipal equipment | $ 220 | $ 280 | $ 320 | $ 375 | $ 550 | $ 660 | $ 800 | | |
| Industrial equipment | 285 | 340 | 390 | 420 | 510 | 550 | 600 | | |
| Industrial process equipment | 135 | 120 | 190 | 250 | 360 | 470 | 620 | | |
| Related construction and auxiliary | 110 | 115 | 165 | 205 | 275 | 345 | 435 | | |
| Total | $ 750 | $ 855 | $1,065 | $1,250 | $1,695 | $2,025 | $2,455 | 22.8% | 24.0% |
| Year-to-year % change | NA | 14.0% | 24.6% | 17.4% | 35.6% | 19.5% | 21.2% | | |
| Total wastewater and air pollution control | $1,310 | $1,570 | $1,850 | $1,990 | $2,435 | $2,870 | $3,415 | 16.8% | 17.3% |
| Year-to-year % change | NA | 19.8% | 17.8% | 7.6% | 22.4% | 17.9% | 19.0% | | |

NA Not available.
(E) Kidder, Peabody & Co. Incorporated estimates.
( ) Parentheses denote decline.
(a) Excludes coke oven emission control systems.

water-area market is expected to increase in size in each of these years whereas the size of the air pollution control market is projected to be down in 1977 and flat in 1978, before resuming positive growth in 1979.

**Wastewater Markets**

The high rate of growth and consistency of year-to-year volume gains projected for the wastewater pollution control markets are the result of the positive trends in each of the markets in the category. The municipal equipment market is expected to show strong rates of gain in each of the years between now and 1980 because of the growth anticipated in the construction of sewage treatment facilities discussed in a later section of this report.

The industrial equipment market is projected to grow each year because of the need to upgrade existing industrial facilities to comply with water pollution regulations coupled with the positive trend we foresee in capital spending during this period. Our 1977 industrial equipment market projection of $420 million, up only 8% from an estimated $390 million in 1976, is a reflection of the sluggishness of capital spending. However, for 1978 we expect a surge in this category to $510 million, resulting from the anticipated pickup in capital spending combined with the need, in the latter part of the retrofit cycle, to comply with the 1977 "best practicable" techonolgy requirements.

The industrial process equipment projections reflect our assessment of the trend toward greater integration of wastewater treatment into process design, with the liquids/solids separation equipment now used in end-of-the-line treatment integrated within the industrial process to increase overall processing efficiency. Growth in the industrial process equipment market, which may well represent the area of strongest profit potential for the equipment suppliers, will be dictated by economic incentives such as water reuse, energy conservation, and improvement of product yields from processing.

**Air Pollution Control Markets**

A slower rate of growth and a greater year-to-year volatility are projected for the air pollution control markets primarily because they are closely tied to the electric utility industry. We estimate that in the last five years, for example, orders placed by

the electric utility industry amounted to approximately 60% of the air pollution control industry business. Furthermore, approximately 40% of the orders placed by the electric utility industry, or 24% of total air pollution control business, were for retrofit, that is, to upgrade equipment largely used for particulate control at existing generating plants. Currently, we belive, retrofit orders make up less than 10% of electric utility orders, or less than roughly 6% of total air pollution control industry business. Thus, if we assume there will be no change in particulate control standards and no massive near-term conversion to coal, it would appear that retrofit is largely completed.

Since examination of the outlook for construction of new fossil fuel generating plants indicates limited activity in the near to intermediate term, it is reasonable to assume that the two components of electric utility demand—retrofit and new plant construction—add up to a sluggish outlook for air pollution equipment shipments. This analysis is confirmed by the recent trend in overall air pollution control industry orders. Industry orders for flange-to-flange equipment peaked in 1974 at $546 million. This was 71% above the 1973 order level of $320 million, which in turn was 72% higher than the $186 million of 1972. In 1975, however, orders declined 27% to $401 million and in 1976, a further 10% to $361 million. There is, incidentally, approximately a two-year lead time between orders and shipments.

In summary, the data in Table 1, showing a decline in shipments in 1977, a flat level of shipments in 1978, and then a pickup in 1979 and 1980, represent our assessment of the sluggishness of electric utility industry order rates, which we anticipate should begin to pick up in late 1977 and 1978, a trend that will not be reflected in shipments until at least 1979.

**Caveats**

Since the investment conclusions that we draw are so heavily dependent on the disparity between the anticipated growth rates of the air and water pollution control markets, it is appropriate to enumerate possible caveats. Assumptions built into the market projections detailed in Table 1 create a built-in bias favoring water pollution control over air pollution control: 1) The air pollution control equipment projections do not fully reflect the magnitude of the developing $SO_2$ scrubber market. Although the order rate is currently escalating dramatically, we do not expect the three-to-four-year contracts to result in a significant industrywide volume of shipments within the next two years. Orders received in the next twelve months will determine whether or not our 1979-80 projections will have to be revised upward. Note, however, that we estimate the flange-to-flange content of a scrubber job should be less than 10% contrasted with the typical 30% to 60% for a more traditional particulate control project. Thus, $SO_2$ scrubber projects will be more heavily construction-oriented. Furthermore, we believe, any major coal conversion program will not affect industry shipments until 1979 at the earliest. In fact, we believe the major impact of a shift toward increased coal utilization will be felt in the 1980-85 period. 2) The potential business opportunities for the latest combustion systems are not assessed. 3) New applications of air pollution control equipment, for coal gasification or liquefaction systems or for fine particulate control, are not included. Here, too, the effect, which could prove to be substantial, would occur after 1980. 4) The data exclude possible new market opportunities in industrial applications, for example, the coke oven emission control systems, which will be discussed in the following paragraphs.

Table 2 presents our preliminary market projections for the developing market for coke oven emission control systems from 1976 through 1980. We have purposely segregated these data from those in Table 1 since in fact this market has until recently not existed. Recently issued Labor Department regulations require that the pollution from pushing a coke oven be controlled by 1980. Our initial analysis (based on an examination of the existing coke oven batteries in the United States and assumptions that will be delineated in a forthcoming issue of *Environmental Control Industry Topics*) indicates a need for installation by the end of 1980 of 120 systems valued at approximately $3 million each. These figures assume installation on approximately half of the existing coke oven batteries, that is, the retrofit market only; no replacement parts business; and the utilization of a movable hooded quench-car system as opposed to a fixed-hooded system, which would be considerably more expensive. The quantum growth indicated in Table 2, with the market expanding from an estimated $20 million in 1977 to $160 million in 1980, is made even more attractive by the fact that we believe this is likely to

Table 2

**Environmental Control Industry Topics**
**Coke Oven Emission Control Systems: Preliminary Market Projections**

| | 1976 | 1977 | 1978 | 1979 | 1980 | Cumulative 1976-80 |
|---|---|---|---|---|---|---|
| Number of systems installed | | 6 | 20 | 40 | 54 | 120 |
| Dollar value (*millions*) | | $20 | $60 | $120 | $160 | $360 |

Source: Kidder, Peabody & Co. Incorporated estimates.

be a highly proprietary product with relatively limited competition, thus offering an opportunity for above-average profit potential.

In summary, these considerations suggest an investment strategy that should seek to 1) concentrate heavily on the water areas, 2) share in the developing coke oven emission control market, and 3) achieve strong but limited participation in the coal-related areas of particulate and $SO_2$ control. We would not want a company's near-term sales and earnings to be too dependent on the coal-related areas, which we believe are not likely to benefit results within the next two years.

**Fundamental and Psychological Consideration**

Table 3 integrates the fundamental and psychological (investor sentiment) considerations useful in evaluating the sectors of the market for purposes of determining investment strategy. The municipal and industrial segments of the wastewater market exhibit the same trend. We have categorized as neutral the near-term (less-than-six-months) fundamental assessment because of the lack of pickup, as yet, in capital spending and the phenomenon we will refer to as the Step 3 Funding Logjam, which is affecting construction starts on municipal sewage treatment plants. These issues are expected to be resolved within the next six months, and thus the outlooks for the intermediate term (six months to three years) and the longer term (three to five years) are characterized as positive. The psychological factors are characterized as uncertain over the near term, because of the current sluggishness in order rates, and then positive for both the intermediate and longer terms because we anticipate psychology will turn positive when the uptick in orders occurs. The conclusion is that the water area appears highly attractive for investment and that any effect on stock prices from near-term uncertainty could be viewed as a buying opportunity.

We have classified the air pollution control markets in four sectors. The traditional pollution control equipment devices—consisting of electrostatic precipitators, wet scrubbers, and mechanical collectors—should exhibit the trend portrayed in Table 1, that is, a decline in shipments in 1977, flatness in 1978, and then an increase resulting from conversion to coal and expansion of electric generating capacity. Table 3 shows the fundamental assessment to be negative over the near-term because that is the direction in which we perceive industry shipments to be headed; neutral over the intermediate term with a pickup in order rates, probably in late 1977 and in 1978, and clearly positive over the longer term. The psychological forces look quite positive on a near-term basis as interest is likely to be stimulated in the coal-related areas. However, in the intermediate term we expect psychology to become uncertain as investors begin to perceive that the impact on sales and earnings will not be felt for several years. Over the longer term attitudes should again become positive. The conclusions are that this is the area where we are most likely to see volatile stock prices and that companies whose near-term sales and earnings trends will be dependent on this market should be considered as possible sources of funds on the upside of volatility during the next round of coal excitement.

**Table 3**

**Environmental Control Industry Topics**
**Investment Strategy**

| | Fundamental Assessment | | | Psychological Factors | | | | |
|---|---|---|---|---|---|---|---|---|
| | Less Than 6 Mos. | 6 Mos. to 3 Yrs. | 3 To 5 Yrs. | Less Than 6 Mos. | 6 Mos. to 3 Yrs. | 3 To 5 Yrs. | Comments | Conclusions |
| **Water** | | | | | | | | |
| Municipal | n | + | + | ? | + | + | Near-term uncertainty because of Step 3 Funding Logjam and timing of upturn in capital spending. | Highly attractive area for investment. . . Any effect on stock prices of near-term uncertainties viewed as buying opportunity. |
| Industrial | n | + | + | ? | + | + | | |
| **Air** | | | | | | | | |
| Particulate: | | | | | | | | |
| Electrostatic precipitators, wet scrubbers, mechanical collectors | – | n | + | + | ? | + | Dependent on utility spending and coal expansion—volatile psychology. | Volatile stock prices anticipated. . . Companies heavily weighted in this area considered possible source of funds on upside of volatility in next round of coal excitement. |
| Fabric filters | n | + | + | + | n | + | Attractive area for long-term growth. | Attractive but still very small market. . . Opportunities being created for post-1980 period. |
| Coke oven emissions | + | + | + | + | + | + | Could be a source of major profit opportunity in air pollution control business. . .Proprietary product. . . Limited competition. | Highly attractive area for investment. |
| Sulfur Dioxide | +/? | +/? | +/? | + | +/? | + | Potential for rapidly growing market. . .closely connected to coal use. . .But large and construction intensive projects, despite proprietary content, represent area of relatively high *risk*. | Attractive area for investment, but investment criteria dictate paying close attention to financials, accounting policies, and company operating record to provide *risk* evaluation. |

Key:
– Negative
? Uncertainty
n Neutral
+ Positive

Source: Kidder, Peabody & Co. Incorporated estimates.

The fabric filter market is shown in the table as a separate line item under particulate control equipment. While the current market is relatively small (approximately $40 million a year) for utility applications, the potential over the next five to ten years is large because of the equipment's applicability to varying fuel sources without reduction of its high particulate-removal efficiency. For the next sector of air pollution control, coke oven emission control systems, the fundamental and psychological considerations appear to be positive over all three time periods, and the area appears to be a most attractive one for investment.

The last air category is that of the sulfur dioxide control market. The fundamental assessment for the near, intermediate, and longer terms suggests a hybrid positive/uncertainty designation. Although we expect a rapidly growing market, closely tied to coal utilization and electric generating expansion, we feel that the basic business entails an above-average degree of risk because of the large and construction-intensive nature of the projects, despite their proprietary content. The company manufacturing scrubbers or installing a system can counter this risk, however, by accounting policies that incorporate substantial contingency and warranty reserves and by utilization of effective contract terms and subcontract arrangements. Psychology is likely to be positive over the near term; then shift into our positive/uncertainty category as investors recognize the risks involved, and then become positive again as the companies likely to be successful are identified.

The conclusions in Table 3 reiterate what was said earlier. While psychological forces associated with coal and air pollution control projects could heighten investor interest and boost the stock prices of the companies participating in these areas, we feel the higher volatility and uncertainty of the timing of the coal impact could make them vulnerable. Thus, we prefer to concentrate on companies that have strong but limited participation in the air markets, including significant involvement in the developing coke oven control market, as well as major roles in the water pollution control markets. This approach should maximize the upside potential of the attractive fundamental assessments while substantially limiting exposure to portions of the business that are riskier from both fundamental and psychological standpoints. Chart 1 shows the principal participants in the environmental control industry. The designations "major participation" and "minor participation" reflect our subjective evaluation of the relative position of each company in the various submarkets. As the chart shows, although there are several companies whose involvement is weighted heavily toward air pollution control (for example, American Air Filter [23], Combustion Equipment [30], and Research-Cottrell [23]), there are only two—Envirotech [37] and Peabody International [25]—with major participation in both water and air pollution control, and only Envirotech appears to have relatively strong participation in all of the major markets, including coke oven emission control systems.

Companies that have good exposure to the water markets, although they are not meaningfully involved in the air markets, include General Signal [53], Neptune International [16], and Marley [55]. (Marley participates in the cooling tower business and in underground water resources development.)

## REVIEW AND IMPLICATIONS OF ENVIRONMENTAL CONTROL INDUSTRY COUNCIL CONFERENCE

The Environmental Control Industry Council sponsored a conference in Washington, D.C., on February 23-25 entitled "Economic Growth *With* Environmental Quality." The implications, in our opinion, were threefold: First, the identity of the environmental control industry was enhanced by the existence of the newly formed council. Second, several informative economic cost/benefit and environmental control industry studies were presented that generally reinforced our investment analysis. Third, we gained positive impressions of the attitude of the Carter Administration, based on our interpretation of the comments made by Stuart Eizenstat, Special Assistant to the President for Domestic Affairs and Policy.

The Environmental Control Industry Council was formed in 1976 and is composed primarily of manufacturers of air and water pollution control equipment. The stated goals of the council are "to promote rationality in policies which affect the industry and to foster a social, economic and technological reputation which will be respected by the public, business and government." Most industries have trade groups with similar goals. The significance of this council is that for the first time the fragmented environmental control industry has

Chart 1

Environmental Control Industry

## PRINCIPAL ENVIRONMENTAL CONTROL INDUSTRY PARTICIPANTS(a)

★ Major participation
● Minor participation
▲ KP intensive coverage

| | AIR | | | | | | | | WATER | | | | SOLID | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PARTICULATE: ESP, WS, MC (b) | FF (c) | COKE OVEN EMISSIONS | SULFUR DIOXIDE | COMBUSTION | MUNICIPAL | INDUSTRIAL | THERMAL | SPECIALTY CHEMICALS | LIQUIDS/TOXICS HANDLING | SERVICES | EQUIPMENT | ENERGY RECYCLING/RECOVERY | ENERGY SERVICES | OTHER BUSINESS EXPOSURE |
| ▲ BROWNING FERRIS INDUSTRIES | | | | | | | | | | ★ | ★ | | ★ | | |
| ▲ WASTE MANAGEMENT | | | | | | | | | | ★ | ★ | | ★ | | |
| AMERICAN AIR FILTER | ★ | ★ | ● | ★ | | | | | | | | | | | *Air-Conditioning and Filtration* |
| COMBUSTION EQUIPMENT ASSOCIATES | ★ | ● | | ★ | ★ | | | | | | | | ★ | | *Agri-Equipment* |
| ▲ ENVIROTECH | ★ | ● | ★ | ★ | | ★ | ★ | | | | | ● | | | *Mining Equipment.* |
| ▲ GENERAL SIGNAL | | | | | | ★ | ★ | | ● | | | | | | *Controls and Instruments - Transportation.* |
| MARLEY | | | | | | | | ★ | | | | | | | *Heat Exchangers, Underground Water Resources Engineering Services & Equipment* |
| NEPTUNE INTERNATIONAL | | | | | | ★ | ★ | | | | | | | | *Fluid-Measuring Meters* |
| ▲ PEABODY INTL. | ● | ● | | ★ | ★ | ★ | ● | | | | | ★ | ● | ★ | *Consulting Engineering, Tall Chimneys* |
| RESEARCH-COTTRELL | ★ | ● | | ★ | | | | ★ | | | | | ● | | *Consulting Engineering, Tall Chimneys* |
| U.S. FILTER | ● | ● | ● | ● | | | ● | | ★ | | | | | | *Consulting Engineering, Petroleum Catalysts* |
| WHEELEBRATOR-FRYE | ★ | ★ | | | | | | | | | | | ★ | | *Consulting Engineering, Tall Chimneys, Specialty Inks, Carbon Papers* |
| ZURN | ● | ● | | ● | | ● | ● | ★ | | | | | | | *Power Generation Systems, Leisure Products* |

Source: Kidder, Peabody & Co. Incorporated estimates.

(a) The list is not all-inclusive:

1) Companies with meaningful industry position but whose participation in these markets is not a major source of investor interest are not included (for example, Carborundum, Dorr-Oliver, Rexnord, and Sybron in water; Carborundum, Dresser Industries, Joy Manufacturing, and Koppers in air).

2) Companies not meeting size (sales or capitalization) criteria, even though investor interest may result principally from participation in these markets, are also excluded (such as Ecodyne in water; Belco Pollution Control and Standard Havens in air; and Waste Resources in solid waste management services).

(b) Electrostatic precipitators, wet scrubbers, mechanical collectors.

(c) Fabric filters.

an organization representing the industry as a whole. The council can thus serve as a focal point for information flow to Congress and the public and, it is hoped, over time facilitate collection of statistical information within the industry. Achievement of a clear-cut industry identification would be significant from an investment standpoint.

**Cost/Benefit Studies**

Several speakers presented studies measuring damage from pollution and comparing the cost of the damage with the cost, under varying assumptions, of controlling the pollution that causes it. The consistently drawn conclusion, that the saving was well in excess of the cost of the pollution controls, should be balanced by the realization that the conference speakers were not randomly selected. It is significant, however, that many economists and researchers seem increasingly cognizant of the interrelationships between economics and environmental quality and energy programs. There appears to be, for example, a growing acceptance of the thesis that reduction in pollution levels does not necessarily adversely affect the economy and employment—in fact, that the expansion of the environmental control industry can provide job opportunities.

Two presentations worthy of attention were those of Doctor Lester B. Lave, a Carnegie Mellon University economist, and Doctor Ronald G. Ridker, economist and Senior Fellow at the Resources for the Future foundation. Doctor Lave commented on his correlation of levels of air pollution in urban areas of the country with the deterioration of human health. Conclusions will be documented in a book entitled *Air Pollution and Human Mortality*, scheduled to be published this summer. Doctor Ridker highlighted conclusions of the Resources for the Future three-year study of long-run resource, environmental, and economic problems the United States will face during the next quarter- to half-century. The final report, not yet published, quantifies trade-offs between expected total costs and risk reductions for specific pollutants and sources. It was found, for example, "that strict enforcement of best available technology standards for water pollution discharges from industrial sources and strict enforcement of sulfur dioxide standards for electric utility plants are superior to any policies of delay. Delay would result in both higher expected total costs and higher probabilities (or more risk) that future damages would exceed current damages."

**A. D. Little Study**

Also presented at the conference was a summary of the recent (November 1976) Arthur D. Little report on the outlook for the environmental control industry. In most areas, the general tenor of the A. D. Little study parallels our views. Following are some of the qualitative conclusions reached with which we agree:

- The slackening of environmental legislation activity since 1972 (the year in which enactment of the major laws was completed) should not be taken to indicate that the environmental movement is behind us but only that the focus of future activity may be more on enforcement.
- Large strides have been made in meeting the air and water pollution requirements, yet a considerable part of the total job remains to be done.
- Meeting the environmental statutes will entail no severe economic difficulty.
- The A. D. Little study concurs with us on the importance of integrating pollution control techniques with industrial process systems in order to improve economic efficiency.

Some of the quantitative conclusions, with which we also concur, are:

- Between now and 1980, the projected growth rate for water pollution control is higher than for the air pollution control markets. As can be seen in Table 4, for flange-to-flange equipment, A. D. Little projects a 13% compound growth rate in air pollution control and a 16% compound growth rate in water pollution control during the period. While the differential in ADL projected growth rates between air and water is not as large as our 5% versus 22%, a differential nevertheless exists.
- Comparison of the relative size of the flange-to-flange air and water pollution control markets indicates that the current water pollution control market is larger than the current air pollution control market and that the size of difference will expand because of the higher growth rates in water than in air.
- On an aggregate basis, the growth rates projected by the ADL study fall in the 13% to 15% range, as is shown in Table 4 (totals of each category). This is close to the 14%-to-18% range that we project, also shown in Table 4. On a more

Table 4

**Environmental Control Industry Topics**
**Comparison of A. D. Little and Kidder, Peabody Market Estimates and Projections**
*(Dollars in millions)*

| | A. D. Little | | | Kidder, Peabody | | |
|---|---|---|---|---|---|---|
| | 1976 | 1980 | Growth Rate (Compound) | 1976 | 1980 | Growth Rate (Compound)(a) |
| Flange-to-Flange Equipment | | | | | | |
| Air | $ 462 | $ 763 | 13% | $ 431 | $ 526 | 5% |
| Water | 590 | 1,060 | 16 | 900 | 2,020 | 22 |
| Total | $1,052 | $1,823 | 15% | $1,331 | $2,546 | 18% |
| Associated Construction and Auxiliary Equipment | | | | | | |
| Air | $ 798 | $1,387 | 15% | $ 354 | $ 434 | 5% |
| Water | 2,960 | 4,750 | 12 | 165 | 435 | 27 |
| Total | $3,758 | $6,137 | 13% | $ 519 | $ 869 | 14% |
| Equipment and Associated Construction | | | | | | |
| Air | $1,260 | $2,150 | 14% | $ 785 | $ 960 | 5% |
| Water | 3,550 | 5,810 | 13 | 1,065 | 2,455 | 23 |
| Total | $4,810 | $7,960 | 13% | $1,850 | $3,415 | 17% |

Source: A. D. Little, Inc. and Kidder, Peabody & Co. Incorporated estimates.
(a) Compound rate used for comparability with A. D. Little.

detailed sector basis (using a sector breakdown that does not directly correspond with ours), the ADL study has projections ranging from 12% to 22% (the latter for a segment of the air pollution market), as compared with our range of 5% to 34% (the latter for a segment of the wastewater market). Again, these numbers are reasonably consistent.

- Although some of the detailed projections vary somewhat from ours, it is significant, in our opinion, that A. D. Little also sees sector growth rates in the 12%-to-22% range as realistic expectations. This degree of agreement should bode well for investor confidence in the outlook for the environmental control market. In contrast, in the early 1970s many market projections led to what proved to be unrealistic expectations.

- The ADL study concurs with us that industrywide profitability has improved in recent years. The study goes on to say that potentials for profit are company-specific and a function of market timing, buyer knowledge, financial management, and cost control. This, too, is entirely consistent with our opinion of the importance of differentiating among industry participants.

The general, and most significant, conclusions of the ADL study are thus consistent with our projections. There are, of course, a good many details on which we do not agree. Some comments comparing the two groups of projections for specific sectors may therefore be appropriate. Tables 4 and 5 were constructed to assist in this comparison. Regarding air pollution control, the following points should be noted:

- The A. D. Little and Kidder, Peabody estimates of the value of flange-to-flange equipment installed in 1976 are similar.

- The ADL estimate of the value of associated construction in 1976 is considerably higher than ours. So is the ADL water pollution control estimate, in both cases because we have included only that portion of the construction activity applicable to the equipment supplier.

- The 1980 ADL projections for both flange-to-flange and associated installation values are much



63-935 O—80——5

Table 5

**Environmental Control Industry Topics**
**A.D. Little Study:**
**Outlook for Various Air and Water Pollution Control Markets**
*(Dollars in millions)*

| | 1976 | | 1980 | | Compound Growth Rate |
|---|---|---|---|---|---|
| **Air Pollution Control** | | | | | |
| Particulate | | | | | |
| Flange-to-flange | $420 | | $670 | | 12% |
| Associated installations | | $ 670 | | $1,080 | |
| Gaseous | | | | | |
| Flange-to-flange | 42 | | 93 | | 22% |
| Associated installations | | 128 | | 307 | |
| Total | | | | | |
| Flange-to-flange | 462 | | 763 | | 13% |
| Associated installations | | 798 | | 1,387 | 15% |
| Combined total | | $1,260 | | $2,150 | 14% |
| **Water Pollution Control** | | | | | |
| Industrial wastewater | | | | | |
| Equipment | $380 | | $ 710 | | 17% |
| Associated construction | | $1,860 | | $3,050 | |
| Municipal wastewater | | | | | |
| Equipment | 210 | | 350 | | 14% |
| Associated construction | | 1,100 | | 1,700 | |
| Total | | | | | |
| Equipment | 590 | | 1,060 | | 16% |
| Associated construction | | 2,960 | | 4,750 | 12% |
| Combined total | | $3,550 | | $5,810 | 13% |

Source: Arthur D. Little, Inc. estimates.

higher than ours. We believe ADL does not attach the same significance that we do to the slowing of the retrofit particulate control market, and the study appears relatively optimistic about the timing of coal conversions.

Regarding water pollution control, the following comments are in order:

- The Kidder, Peabody data show both a higher dollar value and a higher growth rate in the flange-to-flange water pollution control market than do the ADL projections. Apparently we are more optimistic about both the Federal funding of municipal sewage treatment facilities and the integration of wastewater control technology with industrial processes.

**Carter Administration Attitudes**

The address at the conference by Stuart Eizenstat gave a good preliminary indication of the attitude of the Carter Administration toward environmental control. Mr. Eizenstat made it quite clear that the Carter Administration, although recognizing that difficult problems exist and that trade-offs must be made, felt there was no inherent conflict among environmental control, jobs, and energy and that the Administration will provide strong direction to efforts to control environmental degradation. As examples of the Administration's commitment to pollution control, Mr. Eizenstat said President Carter had recommended that the Environmental Protection Agency add 600 persons

to its staff and that the President is backing increased funding for the Construction Grant Program for municipal sewage treatment plants. The Administration, he said, will emphasize the ten-year $45-billion spending target that the Ford Administration had proposed for municipal sewage plants, an amount that would be about 75% of the proposed cost of such facilities over that period. He emphasized the importance of making the environmental regulations reasonable and well understood and then of keeping them constant over time. Stability of regulation, a condition that has not prevailed in the past, would benefit both the equipment manufacturers and their customers. It would be of considerable help to the industry in terms of both confidence in the future and ease of planning.

## MUNICIPAL WASTEWATER EQUIPMENT MARKET: TRENDS AND PROJECTIONS

The Federally funded Sewage Treatment Construction Grants Program will probably prove to be the largest public works program undertaken in the history of the United States. The 75% Federal share of funding for the construction of municipal sewage treatment plants is providing the major thrust for growth in the municipal wastewater equipment market. Table 1 presented our equipment market estimates. Table 6 delineates how those figures were derived.

### Method of Analysis

The first line indicates our estimate of disbursements under the Construction Grants Program. These disbursements represent actual cash outlays from Federal funds. Appropriate assumptions have been made involving the time lags between Congressional authorizations of funds, Environmental Protection Agency obligations to specific projects, and the disbursements that occur as construction proceeds. In his recent supplemental budget message, President Carter asked for $4.5 billion annually for each of the next ten years. On March 10 the Senate attached a two-year $9-billion extension of the existing law to the pending public works measure. On April 5, the House attached to the public works bill a supplemental three-year funding of $17 billion. For the purposes of our projections, we have assumed a long-term funding level of $4.5 billion a year, supplemented by an additional $400 million to $500 million in fiscal 1977, 1978, and 1979 from various other public works programs. Consequently, the disbursements show a strong uptrend through 1980, when the level reaches $5 billion, remain at that figure through 1981, and then decline to $4.5 billion in 1982. They should remain at this level for the next several years.

The next line on the table represents these disbursements multiplied by a factor of 1⅓. This total includes the additional funds that states and

Table 6

**Environmental Control Industry Topics**
**Municipal Wastewater Equipment Market Projections**
*(Dollars in millions)*

| | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|---|---|---|---|---|---|---|---|
| Disbursements—Construction Grants Program | $2,400 | $3,200 | $4,100 | $4,500 | $5,000 | $5,000 | $4,500 | $4,500 |
| Total (Disbursements times 1 1/3) | 3,199 | 4,265 | 5,465 | 5,999 | 6,665 | 6,665 | 6,000 | 6,000 |
| Less: Interceptors | 704 | 1,280 | 1,640 | 1,680 | 1,600 | 1,400 | 1,080 | 900 |
| (% of Total) | 22% | 30% | 30% | 28% | 24% | 21% | 18% | 15% |
| Balance—applicable to treatment plants | $2,495 | $2,985 | $3,825 | $4,320 | $5,065 | $5,265 | $4,920 | $5,100 |
| Equipment percentage | 12.8% | 13.4% | 13.9% | 14.5% | 15.3% | 16.5% | 19% | 20% |
| Dollar value | 320 | 400 | 530 | 626 | 775 | 870 | 935 | 1,020 |
| Adjustment to calendar-year basis | $ 320 | $ 375 | $ 550 | $ 660 | $ 800 | $ 885 | $ 955 | |
| % Change | 14% | 17% | 47% | 20% | 21% | 11% | 8% | |

Source: Kidder, Peabody & Co. Incorporated estimates.

Table 7

**Environmental Control Industry Topics**
**Factors Contributing to the Step 3 Funding Logjam**

| Factors Contributing to the Preconstruction Lag: | To be Solved by: |
|---|---|
| 1) Competition at the local construction contractor level, causing protests of bids and lawsuits—a function of the recession in the construction industry | Pickup in nationwide construction activity as economy improves. |
| 2) Unwillingness or difficulty in financing at the municipal level, because of election-year budget promises or the municipal financing crunch | Elections past.<br>Assistance now available via Federal Financing Bank loans. |
| 3) Public Works Employment Act | Preliminary approvals completed (see Table 8). |
| 4) Lack of follow-up on funding from Congress, affecting as many as 20 states | Authorizations passed separately by Senate and House; compromise expected soon from conference committee. |
| 5) Other:<br>Inflation and escalation of costs dictating redesign by consulting engineers<br>Environmentalists' lawsuits | |

Source: Kidder, Peabody & Co. Incorporated.

local communities must provide in order to qualify for the 75% federal funding. Thus, the second line of the table shows the total dollars spent for the actual construction of sewage treatment plants. The table indicates that by 1982 the spending for construction of sewage treatment facilities will plateau at an annual level of $6 billion. The next line, entitled "Interceptors," represents the portion of the cost of a sewage treatment plant not made up of operating hardware. This figure is subtracted in order to obtain a figure for treatment plant construction to which we can then apply the suitable percentage for the value of equipment included in the treatment plant, shown on the line entitled "Equipment Percentage." As treatment plants become increasingly sophisticated, the equipment percentage will rise from 12.8% in 1976 to 20% in 1983. Thus the equipment market can continue to expand at a rapid rate beyond the period when the value of construction reaches a plateau. The dollar value of equipment installed is shown on the next line. Adjusting to the calendar year the figures that until now have corresponded to the government's fiscal year resulted in the municipal wastewater equipment market projections of Table 1. In Table 6 the projections are extended through calendar year 1982, and for the period 1976 through 1982 a least-squares growth rate of 21% is projected.

Table 6 indicates annual rates of growth in 1976 (up 14%) and 1977 (up 17%) below the long-term growth rate of 21%. This is the result of a near-term phenomenon—the Step 3 Funding Logjam—that is temporarily blocking new construction starts and, in turn, affecting equipment order rates and company backlogs. The following discussion documents this phenomenon and explains why we believe the logjam will break within the next several months, resulting in a surge in order rates, followed in 1978 by strong gains in shipments.

**Step 3 Funding Logjam**

There are three steps in the funding process under the Construction Grants Program. Step 1, project planning, represents an estimated 1% of the contract value. Step 2, design, represents an estimated 5% to 10% of contract value. Step 3 is the

construction grant, which represents 80% to 90% of the value. Once Step 3 has been completed, construction of the sewage treatment plant can proceed. The Step 3 Funding Logjam phenomenon—or, more accurately, a preconstruction lag subsequent to the Step 3 funding—is what appears to be an inordinate delay in th_ construction starts of plants that have been planned and designed and have received construction funding approval. Table 7 enumerates the factors we believe are contributing to this logjam.

Probably the most significant factor is competition at the local construction contractor level. Once the Step 3 grant has been approved, the consulting engineer, working in conjunction with the municipality, awards the project contract to a general contractor. Excessive competition, the result of the recession in the construction industry, has led to protests of bids and to lawsuits among contractors fighting for the awards. In several instances such disputes have, in effect, forestalled the start of construction of sewage treatment plants. This problem should be solved by a nationwide pickup in construction activity as the economy continues to improve.

A second important factor contributing to the preconstruction lag is the unwillingness or inability of municipalities to finance projects. There are two possible explanations. The first is that it is typical during a major election year such as 1976 for politicians to make budget promises that preclude new bond financing for major items such as water pollution control projects. The second, and probably the more significant, explanation is the municipal financing crunch. The inability of some large financially strapped municipalities to supply their share, typically 10% to 15%, of the total project cost may well have impeded construction go-aheads for some plants. Now, however, assistance is available to municipalities via Federal financing of bank loans, in accordance with the loan guarantee amendment to the Federal Water Pollution Control Act (S.3894) signed by President Ford in October,

Table 8

**Environmental Control Industry Topics**
**Public Works Employment Act of 1976**
**Allocations of Funds for Public Works Projects**

| Project Type | Funding ($ in thousands) | % of Funds |
|---|---|---|
| Public safety | $ 97,691 | 5.0% |
| Hospitals | 62,366 | 3.2 |
| Schools | 372,847 | 19.1 |
| Recreational building/parks | 78,772 | 4.0 |
| Other public buildings | 481,113 | 24.6 |
| Industrial development | 50,226 | 2.6 |
| Miscellaneous/multiple buildings | 91,379 | 4.7 |
| Water/Sewer/Drainage | 405,665 | 20.7 |
| Streets/roads/bridges | 179,229 | 9.2 |
| Miscellaneous/multiple civil works | 119,354 | 6.1 |
| Miscellaneous/not elsewhere classified | 16,767 | 0.8 |
| Total | $1,955,407 | 100.00% |

Source: Economic Development Administration, U.S. Department of Commerce.
Note: Figures do not add to totals because of rounding.

Table 9

**Environmental Control Industry Topics**
**Construction Grants Program—Step 3 Funding Logjam**
**Preconstruction Lags**

| | Projects Awaiting Construction | | Those More Than Six Months Old | |
|---|---|---|---|---|
| Date | Number | Volume (Dollars in billions) | Number | Volume (Dollars in billions) |
| 3/7/77 | 624 | $2.60 | 291 | $1.79 |
| 2/4 | 620 | 2.79 | 303 | 1.95 |
| 1/10/77 | 576 | 2.50 | 306 | 1.70 |
| 12/6/76 | 622 | 2.99 | 223 | 1.15 |
| 10/14 | 671 | 3.38 | 215 | 1.24 |
| 9/9 | 647 | 3.50 | 226 | 1.35 |
| 7/31 | NA | NA | 233 | 1.30 |
| 6/30 | NA | NA | 214 | 1.21 |
| 5/31 | NA | NA | 153 | 0.99 |
| 4/30 | NA | NA | 139 | 0.85 |
| 3/31 | NA | NA | 143 | 0.83 |
| 2/29 | NA | NA | 143 | 0.92 |
| 1/31/76 | NA | NA | 142 | 0.99 |
| 12/31/75 | NA | NA | 170 | 1.21 |
| 11/30 | NA | NA | 94 | 0.55 |
| 10/31 | NA | NA | 87 | 0.24 |
| 9/30 | NA | NA | 87 | 0.28 |
| 8/31 | NA | NA | 89 | 0.26 |
| 7/31 | NA | NA | 91 | 0.30 |
| 6/30 | NA | NA | 95 | 0.41 |
| 5/31 | NA | NA | 129 | 0.49 |
| 4/31 | NA | NA | 128 | 0.49 |
| 3/31 | NA | NA | 134 | 0.55 |
| 2/28 | NA | NA | 154 | 0.67 |
| 1/31/75 | NA | NA | 163 | 0.80 |

NA Not available.
Source: Environmental Protection Agency–Kidder, Peabody & Co. Incorporated composite.

1976. After the logistics of the loan guarantee amendment are worked out over the next several months, we anticipate that municipal financing difficulties will not prove to be a major impediment to new construction starts.

Oddly enough, the Public Works Employment Act of 1976, which allocated to municipal sewage treatment plant construction approximately 20% of the funds it made available, has had a near-term adverse impact on the larger Construction Grants Program. The explanation is quite simple. Under the terms of the Public Works Employment Act, 100% of a construction project is funded by the Federal Government. Under the terms of the Construction Grants Program, 75% of the total construction cost is Federally funded. It is logical for a municipality to try to obtain 100% rather than 75% Federal funding. As Table 8 shows, of the $2 billion in Public Works Employment Act funds, $405 million were dedicated to sewage treatment and related construction projects. During the application period, however, 2,000 municipalities submitted applications for projects with a total value of $20 billion. These applications had been shifted out of the Construction Grants Program into the Public Works Employment Act program in order to obtain the higher Federal share of financing. Obviously, $20 billion was not available for sewage treatment plants

Table 10

**Environmental Control Industry Topics**
**Preconstruction Lags: Average Project Size**
*(Dollars in millions)*

| Date | Less Than Six Months Old | More Than Six Months Old |
|---|---|---|
| 3/7/77 | $2.43 | $6.15 |
| 2/4/77 | 2.65 | 6.44 |
| 1/10/77 | 2.96 | 5.56 |
| 12/6/76 | 4.61 | 5.16 |
| 10/14/76 | 4.69 | 5.77 |
| 9/8/76 | 5.11 | 5.97 |
| Average | $3.74 | $5.84 |

Source: Environmental Protection Agency - Kidder, Peabody & Co. Incorporated composite.

since the entire funding provided by the Act amounted to only $2 billion. The shifting of these applications, however, from the Construction Grants Program to the Public Works Employment Act program and then back to the Construction Grants Program obviously created bureaucratic tangles. In some cases construction of a project was halted (even after the Step 3 grant had been made) while the municipality attempted to switch its application. This problem is now resolved insofar as the 1976 Public Works Employment Act is concerned since the preliminary approvals have already been completed. However, a public works employment bill for this fiscal year and the next is pending in Congress. It is only reasonable, therefore, to expect a recurrence of this problem.

Another factor contributing to the preconstruction lag has been the lack of follow-on funding from Congress. As many as 30 states have already used up their fiscal 1977 allocation of funds and are waiting to be notified by EPA that further funds are available. EPA, in turn, is awaiting the go-ahead signal from Congress for additional 1977 and future-year fund authorizations. These authorizations have been passed separately by the Senate and the House, and a compromise is expected soon from the conference committee.

There are several other factors that may also be contributing to the preconstruction lag. For projects whose planning and design were completed over the past two years, subsequent inflation and escalation of costs may require redesign by the consulting engineer before construction can proceed. We believe this has occurred in several instances. Finally, there are the threat of environmentalists' lawsuits and the reluctance of some communities to have sewage treatment plants constructed in their neighborhoods. Consequently, site selection has become an issue in some areas.

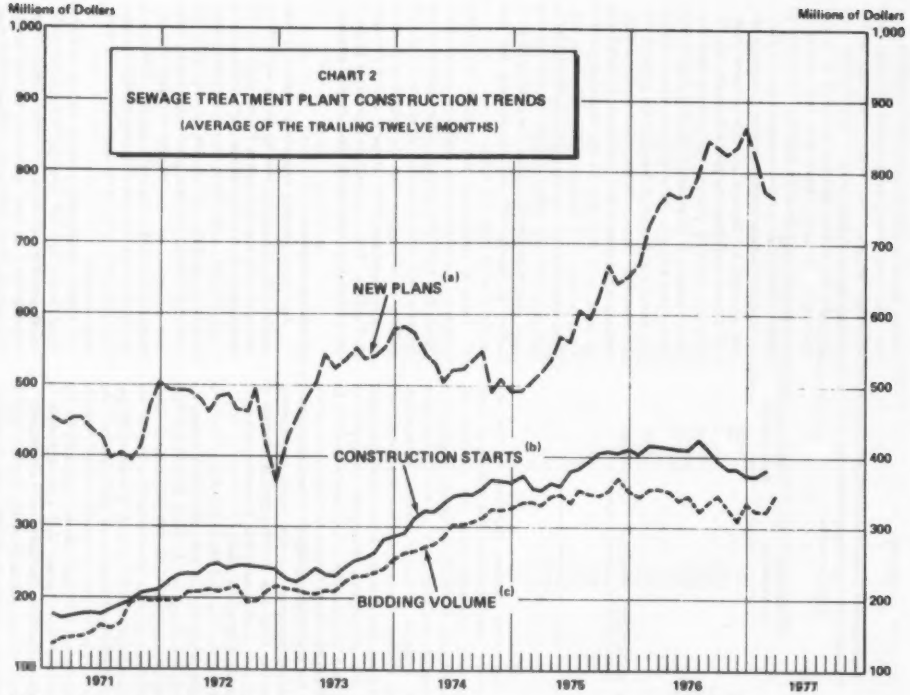
Table 9 quantifies the preconstruction lag. The first two columns present the number and total dollar volume of all projects awaiting construction under Step 3 Grants. The next two columns indicate the number and value of Step 3 Grant projects that are more than six months old. We consider a dollar volume of $1 billion or less to be a normal backlog of projects, as is indicated by the historical pattern from January 1975 through April 1977. From May 1976, when the backlog was just under $1 billion, to February 1977 the dollar volume of the backlog expanded to almost $2 billion. The decline to $1.79 billion in March 1977 was encouraging but one month a trend does not make.

Table 10 summarizes the average size of the projects involved on a monthly basis since September 1976. The average dollar volume of the projects more than six months old approximates $5.8 million, or 56% higher than the volume of those in the less-than-six-months category, which averages $3.7 million. This may indicate that larger projects are proceeding more slowly than smaller projects.

**Resolution of Logjam**

The Environmental Protection Agency is well aware of the preconstruction lag and is, we believe, taking steps to speed progress. Recent plans for EPA to help New York City go ahead with construction of sewage treatment facilities could be an indication of efforts by the agency to expedite larger projects. We expect a substantial pickup in construction starts and reduction of the logjam to result from a combination of the reasons discussed—EPA efforts to expedite, the Treasury financing for hard-pressed municipalities, and construction activity improvement.

Chart 2 graphically portrays several series of data indicative of sewage treatment plant construction trends. Because of the volatility of the monthly data, an average of the trailing twelve-month figures for each series is shown. The chart,




(a) Proposed estimated value of total sewage treatment projects entering the design stage, recorded by *Engineering News Record*.
(b) Contract value of sewage and waste disposal projects at or within 60 days of construction start *(Dodge Construction Potentials)*.
(c) Value of contracts of total sewage treatment projects as of the contract award, recorded by *Engineering News Record*.

not designed for quantitative interpretation, clearly shows that the historical trend is upward in the sewage treatment and waste disposal markets. Treatment plants make up roughly 45% to 55% of each of the series. The *Engineering News Record* New Plans data provide an indication of future bidding activity for sewage treatment construction contracts. ENR Bidding Volume is the dollar value of such projects under active bid, and Construction Starts is the value of the projects nearing or beginning actual construction.

In summary, the phenomenon that we have called the Step 3 Funding Logjam clearly is adversely affecting the current order rates and backlogs of equipment manufacturers. However, we expect the order rates to pick up in ensuing months and the backlogs of equipment manufacturers to rise sharply later in 1977. The outlook for 1978, in terms of shipments, is projected to be unusually strong in an already rapidly expanding market.

## EARNINGS SUMMARY AND VALUATION

Table 11 and Chart 3 illustrate the stock market performance of the environmental control stocks relative to that of the *S&P 500*. The table clearly documents the volatility of the environmental control stocks, as measured by Kidder, Peabody's Environmental Control Index. Since 1970 the index has dramatically outperformed the *S&P 500* in all but one up market year and drastically underperformed it in each down market year. Considerably more than high beta characteristics alone lie behind the relative market performance of the environmental control stocks. The illustrations in Chart 3 are useful in illuminating the interrelationships among fundamental industry trends, vacillating investor psychology, and aggregate stock market direction.

From the bottom of the bear market in mid-1970 through the peak of the 1972 stock market the environmental stocks substantially outperformed the overall market. During this period the fundamental industry trends were just developing, and prospects for the future overshadowed near-term earnings trends, which in themselves were quite positive. Investor enthusiasm ran rampant during this period as primary focus was on the positive implications of the Clean Air Act of 1970, the 1972 Clean Water Bill, and the rise in ecological consciousness (Earth Day and the like). The stocks responded accordingly, and P/E multiples rose to reflect grandiose expectations. Attitudes were reversed in late 1972, just before the stock market peak, and continued on a downtrend through 1974. It became clear that companies earning 10% to 12% on stockholders' equity could not continue to grow at 20% per annum without increasing leverage or

Table 11

Environmental Control Industry Topics
Stock Market Performance of
Environmental Control Stocks(a)

| | Year-to-Year Change(b) | |
|---|---|---|
| | Kidder, Peabody Environmental Control Index(b) | S&P 500(b) |
| 1970 | (22.7)% | (0.1)% |
| 1971 | 34.3 | 10.8 |
| 1972 | 14.0 | 15.8 |
| 1973 | (45.2) | (17.5) |
| 1974 | (58.7) | (29.6) |
| 1975 | 90.6 | 31.5 |
| 1976 | 56.3 | 19.1 |
| 1977 (April close) | 12.9% | (8.4)% |

( ) Parentheses denote decline.

(a) The 1969 and 1970 Environmental Control Index was a composite of eight stocks: American Air Filter, Combustion Equipment Associates, General Signal, Marley Co., Peabody International, Research-Cottrell, U.S. Filter, and Zurn Industries. In March 1971 the index was expanded to include Wheelerator-Frye. The inclusion of Envirotech in January 1972 brought the number of stocks covered by the Environmental Control Index to 10.

(b) Percentage change from December close of the previous year.

Table 12

Environmental Control Industry Topics
Specialty Chemical/Environmental Control/Solid Waste Services Companies
Earnings Review

| Fiscal Year Ends | Company | Recent Price 4/29/77 | 1977 Price Range | Dividend | Yield | PER(a) 1977(E) | PER(a) 1978(E) | Earnings Per Share 1976(A) | Earnings Per Share 1977(E) | Earnings Per Share 1978(E) |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Specialty Chemicals** | | | | | | | | | |
| Dec. | Betz Laboratories, Inc. | 26 bid | 29-25 | $0.48 | 1.8% | 13.7 | 11.8 | $1.60 | $1.90 | $2.20 |
| | **Environmental Control** | | | | | | | | | |
| March(d) | Envirotech Corp. | 37 | 39-32 | $0.80 | 2.2% | 9.0 | 7.9 | $3.77 | $4.10 | $4.70 |
| Dec. | General Signal Corp. | 53 | 53-50 | 1.36 | 2.6 | 11.4 | 10.1 | 4.00 | 4.65 | 5.25 |
| Sept. | Peabody International | 25 | 27-21 | 0.20 | 0.8 | 11.1 | 9.3 | 1.85 | 2.25 | 2.70 |
| | **Solid Waste Services** | | | | | | | | | |
| Sept. | Browning-Ferris Inds. | 11 | 11- 8 | $0.40 | 3.6% | 11.0 | 9.6 | $0.87 | $1.00 | $1.15 |
| Dec. | Waste Management | 16 | 16-12 | 0.20 | 1.3 | 10.0 | 8.2 | 1.18 | 1.60 | 1.95 |

Note: *Dow Jones Industrial Average* (4/29/77): 926.90; *Standard & Poor's 500* (4/29/77): 98.44
(A) Actual.
(E) Kidder, Peabody & Co. Incorporated estimates.
(a) On fiscal-year earnings.
(b) Least-squares.
(c) Theoretical PER based on Kidder, Peabody Equity Valuation Model. Lower PER based on lower of 3-to-5-year growth rates. Higher PER based on growth rate of 15%, maximum currently used in Valuation Model.
(d) Of the following year.
(e) Based on fully diluted earnings per share.

equity financing. Prospects for higher leverage in a period of rising interest rates and rising raw material costs created the spectre of pressure on margins, and continuation of the rate of earnings growth became questionable. The growing energy crisis was thought by many to have anti-environmental implications, and psychology soured. Environmental control was thought to be a bygone fad, and the business, a thing of the past. As a result, multiples nosedived from 40 times earnings (a threefold market multiple), to five times earnings (considerably less than a market multiple). Some actual improvement in industry fundamentals, in terms of levels of profitability, and indications that environmental control industry companies would substantially outperform corporate profits in 1975 went largely ignored by investors through the end of 1974.

The Environmental Control Index increased 91% and 56% in 1975 and 1976, respectively, dramatically above the 32% and 19% gains in the *S&P 500* in those years. The performance of the Environmental Control Index reflected strong earnings gains by the environmental control companies coupled with general expansion in price/earnings ratios from considerable discounts to slightly below market mulitples. The creditable operating history of several industry participants and improving

Table 12 (Cont'd)

| Return on Average Equity | | | EPS Growth Rate | Projections | | | |
|---|---|---|---|---|---|---|---|
| | | | | 3-to-5-Year | Dividend | Theoretical PER(c) | |
| 1976(A) | 1977(E) | 1978(E) | 1971-76(b) | Growth Rate | Payout Ratio | Lower | Higher |
| 21.4% | 21.7% | 21.4% | 27.2% | 15-20% | 30% | 16.7 | |
| 15.9%(E) | 15.8% | 16.0% | 22.3(e) | 15-18% | 20% | 12.8 | |
| 14.2 | 14.9 | 15.0 | 15.1(e) | 12-18 | 30 | 11.0 | 13.9 |
| 12.6 | 13.9 | 14.7 | 18.5 | 15-20 | 20 | 12.8 | |
| 9.3% | 12.3% | 13.2% | 6.6% | 12-15% | 30% | 9.4 | 11.8 |
| 13.5 | 16.5 | 17.6 | 15.7 | 15-18 | 30 | 11.8 | |

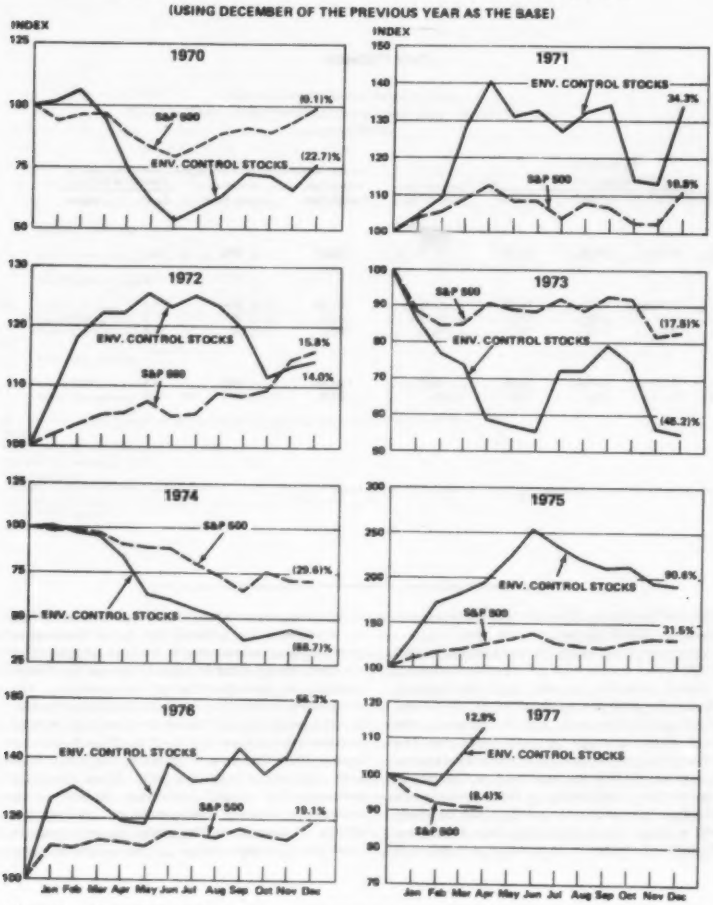
profitability have caused investor interest to refocus on the area. Where do we go from here?

The overall direction of the stock market in 1977 and 1978 will of course have an important influence on these volatile stocks. Yet the strong fundamentals and the probability of continuing favorable psychology bode well for the group. We project above-average growth rates for the environmental control markets over the next several years and expect that the improved profitability of the companies participating in these markets will enable them to finance anticipated growth internally as well as to pay out an increasing share of earnings in the form of dividends. In addition, a number of recent and probable future developments are likely to continue to contribute to a favorable psychological atmosphere for the stocks. The concern about environmental threats to health appears to be intensifying, for example. The seriousness of this concern is illustrated by the fine levied against General Electric for discharge of PCBs into the Hudson River and the $13-million fine levied against Allied Chemical for polluting the James River with kepones. (In January 1977 Allied Chemical announced it would contribute $8 million to establish a Virginia endowment to alleviate the effects of kepone on the environment.) Concern over the growing rate of cancer deaths in New

CHART 3

**MARKET PERFORMANCE OF ENVIRONMENTAL CONTROL STOCKS [a]**

(USING DECEMBER OF THE PREVIOUS YEAR AS THE BASE)




(a) As reflected in the Kidder, Peabody Environmental Control Index (see table 11).

Table 13

**Environmental Control Industry Topics**
**Specialty Chemicals/Environmental Control/Solid Waste Services Companies**
**Kidder, Peabody Equity Valuation Model—Data**

| | Calendar 1977 EPS | Earnings Model Inputs: Growth Rate | Earnings Model Inputs: Dividend Payout Ratio | Earnings Model Inputs: Risk Classification | Theoretical P/E | Projected Theoretical Price | Recer Price (4/29/ |
|---|---|---|---|---|---|---|---|
| **Environmental Control** | | | | | | | |
| Envirotech Corp. | $4.00 | 15% | 20% | 4 | 12.8 | 51 | 37 |
| General Signal Corp. | 4.65 | 12% (15%) | 30% | 4 | 11.0 (13.9) | 51 (65) | 53 |
| Peabody International | 2.35 | 15% | 20% | 4 | 12.8 | 30 | 25 |
| **Solid Waste Services** | | | | | | | |
| Browning-Ferris Ind. | $1.05 | 12% | 30% | 5 | 9.4 | 10 | 11 |
| Waste Management | 1.60 | 15% | 30% | 5 | 11.8 | 19 | 16 |

Jersey, said to be 14% higher than the rate in any other state because of a higher level of industrial pollution, is another example of growing public concern. This concern continues to be supported by Congressional attitudes and, most significantly, is likely to be heard and acted on by the Carter Administration.

Table 12 presents our earnings estimates for the companies included in Kidder, Peabody's *Monthly Earnings Summary*, with 1978 estimates. Table 13 summarizes Kidder, Peabody's Equity Valuation Model data for the same companies. The two last columns on the right indicate the projected theoretical price and the recent price of each stock. Envirotech and Waste Management remain recommendations of the Kidder, Peabody Portfolio Strategy Group.

**Jeffrey A. Klein**

The Research Department

Kidder, Peabody & Co.
INCORPORATED

March 16, 1976

# Environmental Control Industry

## INTRODUCTION

We are making available copies of the *Environmental Control Industry Report: An Analysis of Conditions and Prospects for the Pollution Control Equipment Industry* (CEQ Report), which was prepared for the President's Council on Environmental Quality (CEQ) in conjunction with their Environmental Industry Conference held in Washington, D.C. in December 1975. I cosuthored the report with an able competitor of mine at another brokerage firm. What follows is Kidder, Peabody's summary and interpretation of the report, highlighting the topics of most significance to the investor. For those wishing additional details, we will be pleased to furnish on request the full 140-page CEQ Report.

## *Industry Analysis*

Kidder, Peabody & Co.
Incorporated

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## OVERVIEW AND INVESTMENT IMPLICATIONS

The objectives of this report are principally threefold: 1) to define the environmental control industry; 2) to explain how and why the size of total businesses in the field may not relate directly to U.S. spending on pollution abatement; and 3) to review the positive and negative impacts of environmental control spending on the economy and relate these to a total cost/benefit analysis.

First is the need to define the nature, size, and scope of the markets for environmental control products and services, discuss parameters determining growth in these areas, and provide a 10-year projection for selected markets based on U.S. industry spending patterns supplied by the CEQ. Technological trends and capabilities are reviewed in the CEQ Report as well as the structure of constraints on, and determinants of, past and future industry profitability. Water pollution is segmented into municipal and industrial wastewater components and thermal pollution. Air pollution is discussed by type and application of equipment for removing particulates and gaseous pollutants (for stationary and mobile sources). Solid waste disposal and refuse-to-energy systems are also analyzed.

Secondly, there is a defining of the relationship between total dollar spending by industry and government on environmental control-related items and the estimates of the actual markets for pollution control equipment. Slightly more than half of all expenditures categorized as related to environmental control ($15.9 billion in 1975), for example, is applicable to the actual markets. Of this figure, approximately 14% is for hardware and an additional 4% is for auxiliary equipment and erection of construction services (ratios vary in different market sectors). The balance represents an array of less proprietary land, labor, brick and mortar items, and other engineering services.

The third objective is to provide a balanced framework for a total cost/benefit analysis of environmental spending incorporating not only the obvious and direct dollar costs and advantages but also the indirect impacts on economic growth, investment and inflation, employment, energy consumption, health, property, and production process designs. Perspective is provided on the value of environmental controls as a means of identifying and potentially improving the efficiency of resource allocation.

The CEQ Report discusses the increasing economic advantage to the country as a whole of employing pollution controls and several of the beneficial impacts on the economy of the growing markets for environmental control products and services. While structured to provide an overview of pollution control trends within the general economic framework, the study has at least three positive investment implications which presage higher levels of interest in environmental stocks:

- The markets are of meaningful size and will continue in a growth phase into the 1980s. During 1974, total flange-to-flange equipment supplied by water and stationary air pollution control manufacturers approximated $1.1 billion, and auxiliary equipment and erection business represented an additional $360 million. The total figure should approach or exceed $3.7 billion by 1980 (in constant 1974 dollars). *Thus, overall compound growth of some 16% is indicated.*
- *Integration of production process technology with end-of-pipe treatment is an emerging trend.* Pollutants are generally the by-product of an industrial process which is relatively inefficient or wasteful of natural resources. The traditional (although not necessarily correct) opinion that investment in pollution control is nonproductive forces consideration of design changes which in turn can result in modification of existing processes or substitution of new ones. Thus, a major opportunity exists in the industrial sector. If the equipment supplier can assist in improving the cost structure of the production system, both parties will benefit. The user gets value-added rather than incurring expense which is relatively uneffective in a direct economic sense. The

consequence will be more of an incentive to buyers which should expand opportunities for equipment manufacturers.

• Industry profits have not kept pace with expanding volume. Recently, however, improved contract and payment terms and greater emphasis on performance rather than price are evidence of upgraded conditions in the marketplace. As a result, *profit margins within the industry are stabilizing and are likely to expand over the next several years.*

## COST/BENEFIT PARAMETERS

A major impetus to the evolution of environmental control is the role of social pressure. Such spending can be viewed in two ways. Those who benefit from these expenditures—pollution control equipment manufacturers or scientists concerned with the upgraded conditions in the marketplace. As a result, burden imposed on industries forced to pay for such strictures. Companies which experience the negative impact of the movement often fail to perceive their expenses as anything more than irretrievable cost. This perception of a nonproductive expenditure causes many of the problems and frustrations of the industry. Thus, a discussion of the profit to be gained by some companies from ecological improvement must include a consideration of the economic impact of installing such devices.

National objectives for restraint of pollution probably will not be accomplished by the end of this decade, as many hoped, and efforts should extend well into the 1980s and perhaps the 1990s. Continuing analysis of the social, legislative, and economic effect, coupled with recognition of the limitations of the laws so far enacted, indicate that the need for and the problems of environmental control are far greater than previously had been envisioned.

The common goal should be control of the degradation of resources within a rational time frame and within reasonable cost parameters. Proper assessment of the total expenditures must include an evaluation not only of the obvious dollar cost/benefits but also of the indirect expenses of pollution as well as the ancillary benefits of control.

The establishment of laws, programs, and policies to improve the quality of the environment fosters spending. It is not easy—or at times possible—to estimate fully or accurately the advantages derived from these outlays. A formal, quantified procedure for assessing the tradeoff between benefits to society and costs does not yet exist. Such analysis is done currently on a judgmental basis—often in the political arena—although many studies show that the expense of installation is lower than the damage resulting from pollution. Table 1 lists several identifiable expenditures and advantages associated with such spending.

Table 1

Environmental Control Industry
Costs and Benefits Associated with Environmental Control Spending

| Cost | Benefit |
|---|---|
| Dollars | Damage savings |
| Opportunity cost of alternative capital investment | Property |
| Possible facilities shutdown | Health |
| Impact on economy and unemployment | Psychic and aesthetic benefits |
| Energy costs | Avoidance cost savings |
| | Impact on employment |
| | Improved allocation of finite resources |
| | Production process knowledge |
| | Improved design and efficiency |
| | Energy savings |

## MACROPERSPECTIVE

### Conventional Assessment

Prior to the late 1960s environmental spending was principally discretionary and relatively ignored except by "conservationists" or those



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willing to try to mitigate extreme cases of ecological damage. Attitudes were altered as pollution generators were confronted with a pervasive grass-roots call for laws to preserve and protect the milieu and safeguard public health. As a result, control of contaminants was compelled to evolve from an uneven business practice into an almost normal cost of operations.

Pollution control expenditures thus began to increase dramatically in absolute dollar terms and as a percentage of total capital investment. As shown in Table 2, one major data source indicates that in 1967 1.7% of total spending was aimed at pollution control; from 1970 to 1973, the proportion continued to expand and by 1974 was nearly four times that of 1967.

Major references indicate that pollution control expenditures will continue to increase in the latter half of the 1970s (and begin to represent a stable portion of capital investments in the 5%-10% range). This strong spending pattern, in terms of the conventional interpretation, could result in several adverse consequences.

- Capital investment in pollution control is considered in some cases to be nonproductive, since it does not necessarily produce streams of income in the traditional economic sense.
- Within a period of real or potential capital shortage such as presently exists, pollution control expenditures are seen as lessening the amount of productive investment (related to opportunity cost) which could stimulate an economic recovery and are therefore considered inflationary.

#### Additional and Alternative Assessments

The traditional assessment may be incorrect in the sense that it considers such disbursements in an economic void without regard to ramifications throughout the economy and does not consider any implications beyond those of dollar costs. These expenses might properly be considered not only in terms of financial impact as a whole (capital allocation, economic growth, inflation, etc.) but also in terms of noneconomic weight (human resources and employment, energy requirements, health implications). Such outlays, therefore, should be viewed in a more realistic and balanced manner consistent with the cost/benefit framework introduced earlier. The following briefly reviews some of these topics.

The increased expenditures on pollution control are projected by a Chase Econometrics study to raise the rate of *economic growth* through 1976 above the level otherwise attained. The positive stimulus is then reduced and by 1979 real GNP is estimated to be below a baseline forecast. This difference gradually diminishes and

Table 2

**Environmental Control Industry**
**Pollution Control Expenditures Relative to Total U.S. Capital Investments**
*(Dollars in billions)*

| | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|---|
| Pollution control | $ 1.07 | $ 1.13 | $ 1.67 | $ 2.50 | $ 3.25 | $ 4.50 | $ 5.69 | $ 6.92 |
| Total investment | 64.08 | 67.77 | 75.56 | 79.71 | 81.21 | 88.44 | 99.74 | 112.40 |
| Pollution control (% of total) | 1.7% | 1.7% | 2.2% | 3.1% | 4.0% | 5.1% | 5.7% | 6.2% |

Source: McGraw-Hill publications.

by 1982 real GNP ends up virtually the same in both calculations.

The impact on *inflation* follows a similar pattern. The added economic stimulus provided by environmental spending in the first half of the 1973-82 period produced an average annual rate of increase of 0.6% for the Wholesale Price Index (WPI), 0.4% for the GNP deflator, and 0.24% for the Consumer Price Index (CPI). In the latter half of the decade the effect on prices is reduced, and when averaged over the 10 years, the WPI increases only 0.2% more, the GNP deflator 0.1% more, and the CPI 0.02% more with pollution control expenditures.

In keeping with the pattern of overall economic growth, the *unemployment rate* is 0.4% lower in 1975 and 0.3% smaller in 1976 than otherwise would have been the case. However, the level gradually rises to 0.4% above the baseline forecast by 1979. The difference slowly decreases and returns almost to zero by 1982.

Additional analysis indicates a minimum impact on unemployment due to plant closings caused by environmental regulations. EPA estimates that between January 1971 and June 1973 about 75 shutdowns affecting 13,600 employees occurred. However, the decrease in the work force caused by these potential closings will be less than suggested by the 13,600 figure.

On the positive side, environmental spending creates jobs. In 1975, the federal budget for pollution control was approximately $4.2 billion, private industry spent about $5.9 billion for new investment, state and local government in the range of $1.5 billion (excluding solid waste handling), and industries as much as $4.1 billion on operation and maintenance. Using an average of 70,000 people employed per billion dollars of expenditures (based on Bureau of Labor Statistics), total jobs related to pollution control in 1975 were over 1 million. Given the increased outlays projected over the next decade, the number of positions could expand several times over.

Since the "energy crisis," decisions on environmental quality began to be considered within the context of the *energy required* to achieve desired levels. Energy consumption associated with pollution control depends on the degree of treatment and the process involved. For example, a utility plant or wastewater treatment facility may necessitate significant consumption to operate equipment such as pumps, fans, and compressors. On the whole, however, the energy penalty associated with pollution regulation appears relatively small. The conclusion of several recent studies is that easing requirements would not significantly aid in reducing energy consumption, whereas the lack of environmental cleanup would create other problems.

One such report (EPA and outside consulting agencies) indicated that direct energy requirements to operate air, water, and solid waste pollution control facilities would be about 1% of U.S. energy demand. This consumption would approximate 747 trillion Btu or less than twice the energy used in 1968 to air-condition American homes.

When *health and property* data are considered, there seems to be an outright economic advantage to pollution control. Numerous studies have shown that the costs of installation appear much lower than the monetary value of the harm they prevent. The CEQ Report reviews and summarizes various EPA, National Academy of Sciences, National Commission on Water Quality, National Wildlife Federation, and several private university studies assessing the impact of the health and property damages from pollution.

At the Environmental Control Conference one of the principal speakers indicated that a 50% abatement of air pollution in major cities of the U.S. would add about one extra year to life expectancy. This translates into a savings of about $12 billion per year to the economy.

The last topic reviewed in the macroperspective framework is the concept of pollution control expenditures representing, by themselves, a productive investment in the economic sense. A forced focus on inefficient use of materials or energy may result in modification of existing processes or substitution of new ones that not

only reduce pollution but effect other cost savings as well. The CEQ Report outlines several illustrations in the chemical, pulp and paper, and other industries where installation of control equipment has translated into better efficiencies or reduced raw material costs.

## EQUIPMENT MARKETS

### Definitions and Methodology

In moving from macro-spending patterns to micro-sectors (the markets for the hardware and services used in applying pollution control), an analogy can be made with three concentric circles. The largest represents costs and benefits that accrue on a national scale, including financial, health, aesthetic, and others. The middle stands for the expenditures and advantages applicable to municipalities and individual industries generating the waste. The sum of the expenses incurred to clean up these operations is the dollar cost of controlling pollution. The innermost circle delineates benefits accruing to companies whose business is supplying equipment and services needed to control pollution.

Thus, the markets discussed (industrial and municipal wastewater, thermal water pollution, particulate and gaseous air pollution, and solid waste equipment used principally for resource recovery) should be considered the core of the macro-spending previously reviewed. Because market sizes, which will approximate hundreds of millions of dollars may appear relatively small in comparison with the tens of billions of dollars discussed earlier, the following points should also be considered:

1. Generally only 10% to 25% of total expenditures represents equipment (flange-to-flange).

2. Many macro projections include interest on capital expenditures, operating, and maintenance expense, which produce no equipment sales.

3. For the most part, the data are based on results of surveys and questionnaires that are not always accurate. Respondents tend to enlarge their definition of environmental control spending since compliance with public demands enhances corporate images.

4. Changes in the production process are increasingly being made as a coordinated effort with or substitution for end-of-line industrial wastewater treatment. These expenditures are included as abatement costs, but do not always create equipment sales.

5. Our definition of pollution control hardware markets (PCHM) is relatively narrow and will exclude many materials and supplies that might reasonably be included as part of revenues.

6. Many estimates assume compliance with regulations, whereas these PCHM calculations generally assume nonadherence. (For example, design, construction, and installation of secondary municipal sewage treatment facilities will continue well into the 1980s before complying with 1977 legislative objectives.)

### Air Pollution Control: Stationary Sources

#### *Particulate Removal*

Particulate removal, conventionally called dust collection, involves the withdrawal of coarse and fine particles from an air stream. There are four basic particulate extraction devices: electrostatic precipitators, fabric filters, wet scrubbers, and mechanical collectors. Variables that must be considered when selecting from the available equipment include gas flow rates; temperature; nature, concentration, and size of particulates; and degree of control desired. In addition, several of these devices can be modified to incorporate features of others. As a consequence of divergent requirements and results, each of the four is used to a varying extent by different industries. The function and operation as well as the energy consumption and principal cost components (hardware and erected costs) are reviewed in the CEQ Report.

On a flange-to-flange basis, the market for particulate control equipment was over $324 million in 1974 as delineated in Table 3.

Between 1973 and 1974 shipments were up

Table 3

**Environmental Control Industry**
**Shipments of Particulate Equipment F.O.B. Plant(a)**
*(Dollars in millions)*

| | 1972 | 1973 | 1974 |
|---|---|---|---|
| Electrostatic precipitators | $ 76.1 | $122.8 | $166.6 |
| Fabric filters | 73.1 | 75.6 | 97.9 |
| Wet scrubbers | 22.9 | 21.9 | 29.7 |
| Mechanical collectors | 17.2 | 21.7 | 30.4 |
| Total | $189.2 | $242.0 | $324.6 |

Source: Department of Commerce.
Note: Numbers may not add to totals because of rounding.
(a) Excludes gaseous wet scrubbers and other equipment.

about 34%, although inflation probably accounted for about 12% or more of the increment. The figure does not equal total market size, since data were compiled on a survey basis and spare parts for flange-to-flange equipment are not included. Over the three-year period through 1975, spiraling costs and improved profitability have resulted in the equipment price increases shown in Table 4.

Historically, selection of a precipitator was dictated mainly by cost, with efficiency and operating availability of secondary concern. This has changed drastically in recent years and the heightened need for efficiency and availability is resulting in larger and more costly units. Wet scrubber and mechanical collector rises mainly reflect higher raw material prices. Fabric filters have appreciated least due to strong industry competition.

Table 4

**Environmental Control Industry**
**1973-75 Estimated Flange-to-Flange**
**Price Increases**

| | |
|---|---|
| Electrostatic precipitators | 25% - 40% |
| Fabric filters | 15 - 20 |
| Wet scrubbers | 25 |
| Mechanical collectors | 20 |

Source: Kidder, Peabody & Co. Incorporated estimates.

Most of the equipment is not sold flange-to-flange but rather on partial or total turnkey bases which include erection and auxiliary equipment. The cost when fully installed is often more than three times that of the device itself, and the manufacturer usually gets a portion of these related revenues. Thus the market is considerably greater than is indicated by the flange-to-flange data alone. (The total size is estimated in a later section.) Growth for the electrostatic precipitator market will largely be determined by demand for coal as a power generation source. The market will be stimulated by new power plants, retrofit units for older plants that must meet more stringent regulations as well as other fossil fuel units that may convert to coal over the intermediate term. Additionally, increased use of western low-sulfur coals will require larger and more expensive devices. Other applications could include coal conversion systems to remove particulates.

Fabric filters will continue to expand in the process industry as materials recovery becomes more important and also as OSHA standards are more rigidly enforced. With further development of high-temperature filter media, more utility projects are being attempted. Unlike the precipitator and the wet scrubber, a given filter can remove particulates from a wide variety of coals.

The fact that submicron removal generally is not possible and that a water pollution problem exists limits the growth opportunities for wet scrubbers in particulate removal. Wet scrubbers are the primary piece of equipment for sulfur oxide abatement and this application will comprise the bulk of future expansion.

Demand for mechanical collectors (used mainly for removal of coarse particles) will be determined largely by product recovery applications and growth in refinery capacity.

Table 5

Environmental Control Industry
Selected Sulfur Removal Systems

| Process | Installation Capacity (Kw) | Estimated Capital Cost *(dollars per kw)* | Estimated Operating Cost *(dollars per kwhr)* | % of Sulfur in Fuel |
|---|---|---|---|---|
| **Throwaway** | | | | |
| Limestone scrubbing | 115,000 | $57–Retro | 2.2 mills | 0.4%-1.0% |
| | 820,000 | 43–New | NA | 5.2 |
| Lime scrubbing | 65,000 | 57–Retro | 2.5 mills | 3.5-4.0 |
| | 410,000 | 84–Retro | 5.8 mills | 1.0-2.8 |
| **Recovery** | | | | |
| Magnesium oxide scrubbing | 100,000 | $70–Retro | NA | 2.0% |
| Catalytic oxidation | 110,000 | 73–Retro | 4.0 mills | 2.9-3.2 |
| Wellman Lord | 115,000 | NA Retro | NA | 3.2-3.5 |

Source: PEDCO Environmental Specialists, Inc.
NA Not available.

*Gaseous Removal: Sulfur Oxides*

Wet scrubbers for controlling sulfur oxide emissions (flue gas desulfurization, FGD) permit use of medium and high-sulfur coals for power generation. (In states where more stringent standards prevail, low-sulfur coals must also be treated.) Although there are many systems available utilizing different technology and treatment chemicals, they can be categorized into two basic types: throwaway and recovery.

Approximately 3,207 megawatts of generating capacity have demonstration FGD units installed today (excluding 187 megawatts of oil-fired capacity) in 20 separate units. Table 5 presents estimates of the costs of various systems. With the exception of the three recovery systems, additional operating costs can be incurred for disposal of the sludge.

Table 6 indicates first generation FGD units were essentially demonstrated on older units which are considered more difficult than the new ones because of modification problems and higher engineering costs. Later systems are being applied to new units mainly adhering to new source performance standards. More than 73,000 megawatts of existing capacity are currently out of compliance, 45,000 of which have no established plans to meet standards. Between now and 1980, another 76,000 megawatts of coal-fired capacity could come on line, of which only 14,309 are committed to FGD.

The potential for application of scrubbers thus appears substantial. The data indicate a market size of between $3.0 billion and $9.0 billion by the early 1980s depending on the degree of compliance assumed. However, these projections have been subject to criticism. The main consideration is the method used to control sulfur emissions. The problem of sulfur oxide control in high-sulfur coal can be solved in two ways: precombustion removal via solvent refining processes or coal gasification, or postcombustion abatement via FGD.

Precombustion desulfurization does appear to be the best long-term method for controlling sulfur oxides. A great deal depends upon the

Table 6

**Environmental Control Industry**
**Current Status of FGD Market**

| | Number Units | Generating Capacity (in megawatts) New | Retrofit | Total |
|---|---|---|---|---|
| Operational(a) | 22 | 437 | 2,957 | 3,394 |
| Under construction | 23 | 5,450 | 2,100 | 7,550 |
| Planned | | | | |
| Contract awarded | 11 | 3,951 | 340 | 4,291 |
| Letter of intent | 11 | 4,471 | 240 | 4,711 |
| Requesting/ evaluating bids | 6 | 3,150 | 277 | 3,427 |
| Considering | 46 | 15,900 | 8,107 | 24,007 |
| Total | 119 | 33,359 | 14,021 | 47,380 |

Source: PEDCO Environmental Specialists, Inc.
(a) Includes two oil-fired units.

higher-cost of fuels in the future. Gasified coal, when it becomes commercially available, could cost the user up to $3.75 per million Btu, as compared to the current cost of $2.00 to $2.35 per million Btu of the highest-priced imported residual oil. Originally anticipated for the early to mid-1980s, financing and production costs make it appear that significant commercial application is much further off.

It seems, therefore, that postcombustion procedures will be utilized to control sulfur oxides until such time (probably not before the 1990s) as precombustion technology can be commercially applied. Consideration, however, should be given to two additional factors, characterized as the institutional constraints and the competing strategy of dispersion (rather than emission control).

The former are the barriers to the application of sulfur oxides control beyond those associated with technological, economic, or environmental factors in the electric power industry. The primary difficulty is the lack of familiarity with chemical processing within the utility industry. Over time, this problem will be addressed and reduced and appropriate engineering and maintenance staff additions made, for FGD systems.

The competing strategy of dispersion involves tall stacks to discharge the pollutants into upper air levels where meteorological conditions disperse sulfur oxides. The use of increased stack height as a singular control method is a frequently misunderstood aspect of the sulfur oxides control dilemma. Stack height is a necessary feature of most air pollution abatement strategies even with best available controls applied. It is not normally feasible to eliminate pollutant emissions totally, and stacks must therefore be used to reduce the possibility of the plume impacting in the immediate vicinity of the plant. The costs associated with installation and operation of tall stacks and appropriate weather monitoring instruments are substantially less than those of a continuous emission control using FGD. Use of tall stacks can successfully meet ground level ambient air standards. The problem, however, is that the method simply discharges the pollutants.

There are still many uncertainties concerning the total sulfur cycle in the environment and the effects of this atmospheric element on human health and welfare. A mounting body of evidence suggests that the sulfuric acid aerosols and sulfates formed may be even more potent irritants than sulfur oxides. Preliminary data gathered from the Swedish experience and experiments in

the U.S. intimate that potentially serious impairment of vegetation and wildlife could occur.

If these data did not exist or could be proved invalid, then tall stack utilization could obviate the need for FGD systems and equipment manufacturers would have little demand for their products and services. However, the data exist and, although still controversial, do indicate that relative costs are not the only consideration.

This competing strategy coupled with institutional constraints and less-than-fully demonstrated FGD performance has contributed to only limited acceptance of the system by utilities to date. Yet there are isolated cases of companies being satisfied with an FGD system. In addition, some vendors appear willing to guarantee performance indicating a growing (or substantially higher) level of confidence in second-generation units.

**Water Pollution Control**

*Municipal and Industrial Wastewater*

The water and wastewater equipment markets have four segments as shown in Table 7. The equipment supplied can be used to remove unwanted substances from, or add desirable chemicals, to water depending on the user and the location. Water treatment normally involves the processing of raw liquid before use. Municipal application requires any and all procedures necessary to render the water drinkable (potable); industrial application involves meeting specifications for the appropriate process being employed—for example, a steel mill or a pulp and paper plant. Wastewater handling, on the other hand, involves end-of-pipe treatment after usage: municipal application is principally for sewage; industrial, for discharge or reuse within the plant or facility. This analysis will deal only with wastewater treatment markets, although many firms serving this area are also involved with water treatment.

Table 7

Environmental Control Industry
Water and Wastewater Equipment Markets

| | Application | |
|---|---|---|
| | Municipal | Industrial |
| Water treatment | Potable | Process |
| Wastewater treatment | Sewage | End-of-pipe discharge or reuse |

Significant differences exist between municipal and industrial markets for wastewater treatment equipment owing to varying application characteristics and buyer motivation and response. First, although in all cases equipment and technology are conceptually similar (i.e., liquids/solids separation), different selling approaches are normally required. Second, since a municipal facility is frequently more construction-intensive than an industrial operation, there is a greater lag between equipment being sold and actually installed. In the municipal market, sales are spread over a greater period of time. Third, the funds for growth in each of these areas come from different sources. These and other differences are discussed in greater detail in the CEQ Report.

The technology now exists to reclaim wastewater to virtually any degree desired. The treatment processes in general use consist of three stages: primary (removal of solids, grit, and grease by settling), secondary (controlled degradation or separation of organic matter by either biological microorganisms or physical and chemical processes), and tertiary. Primary treatment normally removes 40% to 50% of suspended solids and biological oxygen demand (BOD). Proper employment of conventional (primary plus secondary) application can result in removal of 80% to 90% of contaminants, but does not eliminate nutrients, such as nitrogen and phosphorus, which contribute to eutrophication of lakes and rivers. In order to render the water suitable for reuse, tertiary or other advanced methods, which can eliminate up to 95% or more of the contaminants, must be applied. The end result of these processes is a concentrated waste, known as sludge, which requires separate handling and disposal.

The regulations issued by EPA in accordance with the legislation are generally forcing industries toward tertiary levels, whereas most municipalities will probably not surpass secondary stages within this decade. The equipment components and functions for varying systems are discussed in the CEQ Report.

Most secondary treatment plants have traditionally employed biological processes. They are upgraded to tertiary levels usually by physical-chemical methods. Traditionally, secondary treatment is thought of as primary plus biological application; and tertiary as primary, biological secondary and physical-chemical tertiary. Physical-chemical technology recently has been regularly applied to total systems and is referred to as independent physical chemical treatment systems, or IPCT.

More consideration may be given to using IPCT for primary or secondary treatment in new plants because equipment may cost less to upgrade when future requirements necessitate higher quality effluent. In general, although operating expenses of a secondary physical-chemical system may at times be greater than those for the equivalent biological system, the capital costs may be comparable. However, upgrading a secondary physical-chemical system to full IPCT will usually require substantially less capital investment than advancing the biological secondary to tertiary. Thus, the IPCT plant may be considered as a substitute for the traditional biological system in the future—a significant implication for the equipment manufacturer.

*Equipment Portion of Total System*

A total system involves business opportunities for the universe of water pollution control industry participants—consulting engineers, construction companies, pipe and pump suppliers, process equipment vendors, instrument sellers, and chemical companies. A municipal sewage treatment plant is usually construction-intensive with land, labor, brick, mortar, pipes, and other costs of sewage collection and treatment representing approximately 85% of expenditures (see Table 8). The major market opportunity for manufacturers is the sale of hardware used in these facilities, representing 10% to 22% of the project cost, depending on the level of treatment and type of system used. A typical industrial system will employ one and one-half to two times as much equipment (as a percentage of total system cost) as a municipal plant. The markets include the process equipment suppliers, some pump manufacturers, and instrument makers.

Table 8

Environmental Control Industry
Cost Breakdown for
Wastewater Treatment

| Participant | Capital Cost Percentage |
|---|---|
| Consulting engineers | 2%-10% |
| Construction companies and pump and pipe suppliers | 67-88 |
| Pump suppliers<br>Process equipment suppliers<br>Instrument suppliers | 10-22 |
| Chemical companies | 0-1 |

Source: Kidder, Peabody & Co. Incorporated estimates.
Note: The figures discussed do not include the costs of sanitary, storm, or combined sewers, which feed into municipal systems. Inclusion of these construction costs would roughly double the total but would include virtually no additional pollution control equipment.

Hardware for the more advanced portions forms a relatively higher proportion of system costs—15% to 30% in the tertiary stage and only 8% to 10% in the primary. There are indications of a rising trend as more advanced wastewater treatment and increasingly sophisticated methods of sludge handling, such as multiple-hearth incineration and

wet air oxidation, are employed. However, ranges vary between 10% and 22%, presently, with the mean likely to approach 20% by 1980 from the present 13% level. (There are, however, selective instances in which equipment can represent as much as 40% of total system cost.) Raw material cost components by type of treatment are reviewed in the CEQ Report.

*Funding*

The role of the federal government is preeminent in water pollution control. Industrial projects are financed by industries themselves, but federal regulations determine how much, and to what extent, industry will spend. Construction of municipal projects is largely influenced by actual federal monies.

Table 9 shows former obligation levels and disbursements of construction grant monies as well as projections. The buildup of past obligations, coupled with the higher level of current and projected obligations, indicates increasingly larger annual outlays. Furthermore, recent developments aimed at expediting funding and better matching manufacturer cash flows with working capital requirements indicate that these funds should be disbursed at an even faster

**Table 9**

**Environmental Control Industry**
**Federal Funding of Municipal Wastewater Treatment Facilities**
*(Dollars in millions)*

| Fiscal Year(a) | Funds Authorized by Congress | Funds Appropriated by Administration | Funds Obligated to Projects by EPA(b) | Funds Disbursed by EPA(b) |
|---|---|---|---|---|
| 1979(E) | | | | $4,100 |
| 1978(E) | | | | 4,100 |
| 1977(E) | | $5,000 | $6,400 | 3,200 |
| 1976(E) | | 4,000 | 5,000 | 2,200 |
| 1975 | $7,000 | 4,000 | 3,642 | 1,532 |
| 1974 | 6,000 | 3,000 | 1,384 | 876 |
| 1973 | 5,000 | 2,000 | 2,988 | 684 |
| 1972 | 2,000 | 2,000 | 860 | 413 |
| 1971 | 1,250 | 1,000 | 1,152 | 478 |
| 1970 | 1,000 | 800 | 424 | 176 |
| 1969 | 700 | 214 | 201 | 135 |
| 1968 | 450 | 203 | 191 | 122 |
| 1967 | 150 | 150 | 131 | 84 |
| 1966 | 150 | 121 | 118 | 81 |
| 1965 | 100 | 90 | 87 | 70 |
| 1964 | 100 | 90 | 85 | 66 |

Source: EPA, OMB, and Kidder, Peabody & Co. Incorporated estimates.
(E) Kidder, Peabody & Co. Incorporated estimates.
(a) Fiscal years end June 30; starting 1977, fiscal year ends September 30; figures for that year cover 15 months.
(b) Excludes reimbursements.

rate than in prior years. (A caveat to this optimistic scenario is that lack of sufficient matching state and local capital for major projects, owing to financial problems, could restrain the upward momentum of the program.)

Appropriated funds were almost fully obligated between 1964 and 1971. During 1972, EPA experienced a slowdown in construction grant applications because of the pending 1972 Clean Water Act, which increased the share of Federal funding from 55% to 75%; but the temporary reduction in obligations did not have a significant impact on the flow of disbursed funds. During 1973, grant obligations largely caught up with funds available from the prior year. The slack in 1974 was due primarily to procedural difficulties in processing grant applications because of substantive changes dictated by the new law. The difficulties are being resolved to some degree as indicated by the 1975 figures.

It appears likely that all the funds presently authorized will be obligated within the next two years as detailed in Table 10. The 1974 Needs Survey indicates upward of $46 billion will be necessary to raise municipal treatment to secondary or higher levels where required. Based on a 75% Federal funding rate, at least $35 billion in construction grants will be needed. Consequently, the EPA is recommending that at least $5 billion (and possibly as much as $7 billion) be made available yearly in fiscal 1978 and beyond.

Table 10

Environmental Control Industry
Tracking PL 92-500 Obligations
*(Dollars in billions)*

| | EPA Obligated Funds | Cumulative | Cumulative Remainder(b) |
|---|---|---|---|
| 1977(E) | 6.40 | 18.00 | – |
| 1976(E) | 5.00 | 11.60 | 6.40 |
| 1975 | 3.64 | 6.62 | 11.38 |
| 1974 | 1.38 | 2.97 | 15.03 |
| 1973 | 1.59(a) | 1.59(a) | 16.41 |

Source: EPA, OMB, and Kidder, Peabody & Co. Incorporated estimates.
(E) Kidder, Peabody & Co. Incorporated estimates.
(a) Does not include funds prior to the 1972 Water Bill.
(b) Total contract authority of $18 billion.

*Market Size and Factors for Growth*

The total market for wastewater treatment increased from $90 million in 1965 to $229 million in 1970. Since then, spending has increased dramatically owing to the growing municipal grants program and the promulgation and initial enforcement of industrial waste guidelines. Estimates indicate that sales in 1975 will approximate $580 million and that by 1980 total size should approach $1.4 billion.

Table 11 shows an analysis of market composition for 1970, 1975, and 1980. The shifting pattern of growth in the two major segments is largely a function of different installation times—municipal being greater than industrial—and of the increasing interface between industrial wastewater and process control.

Table 11

Environmental Control Industry
Composition of Wastewater
Market Segments

| | Municipal | Industrial |
|---|---|---|
| 1980(E) | 57% | 43% |
| 1975(E) | 42 | 58 |
| 1970 | 41 | 59 |

Source: Kidder, Peabody & Co. Incorporated estimates.
(E) Kidder, Peabody & Co. Incorporated estimates.

The relative importance of equipment types in new systems is shown in Table 12, which deals principally with municipal systems; industrial units must be tailored to specific application. (Note the growing importance of advanced systems and the more sophisticated sludge handling. Advanced IPCT is included under tertiary.)

Table 12

**Environmental Control Industry
Estimated Composition of
New Systems**

| | 1970 | 1975 | 1980 |
|---|---|---|---|
| Primary | 40% | 32% | 23% |
| Secondary | 40 | 36 | 32 |
| Tertiary | 2 | 9 | 16 |
| Sludge handling | 18 | 23 | 29 |

Source: Kidder, Peabody & Co. Incorporated estimates.

Finally, the summary data presented in Table 13 indicate that although the municipal and industrial segments increased about equally from 1970 to 1975, the municipal market should demonstrate accelerated growth in the 1975-80 period. Opportunities for the equipment supplier may, however, exceed the numbers shown. The greater application of turnkey projects in the industrial sector may add engineering fees and in some cases construction revenues. There are also indications that manufacturers are offering service contracts for the operation of the hardware they install. Furthermore, the industrial vendor is supplying processing equipment—which adds to market size but also introduces greater exposure to economic volatility and capital process expenditures. In addition, Table 13 does not include real and potential overseas demand.

Table 13

**Environmental Control Industry
Domestic Municipal and
Industrial Wastewater Treatment Equipment**
*(Dollars in millions)*

| Year | Municipal | Industrial | Total |
|---|---|---|---|
| 1980(E) | $780 | $600 | $1,380 |
| 1977(E) | 400 | 440 | 840 |
| 1976(E) | 320 | 390 | 710 |
| 1975(E) | 245 | 340 | 585 |
| 1972(E) | 150 | 180 | 330 |
| 1970 | 94 | 135 | 229 |
| 1968 | 82 | 56 | 138 |
| 1965 | 56 | 34 | 90 |

Source: Kidder, Peabody & Co. Incorporated estimates.
(E) Kidder, Peabody & Co. Incorporated estimates.

*Thermal Pollution Control Equipment*

Another type of water pollution involves the production of excess temperatures. This thermal contaminant may have to be controlled prior to discharge into a waterway, for the resulting heat increase could adversely affect the natural aquatic environment; or in an industrial application, this temperature may have to be reduced to acceptable levels before water reuse.

There are three principal applications for water cooling systems: electric utilities—the largest category, industrial processes, and large air-conditioning systems. Approximately 85% of the water used by industry is accounted for by four major groups—primary metals, chemicals, paper, and petroleum and refining.

The methods for providing adequate water cooling can be divided into three categories—once-through, evaporation (utilizing ponds and sprays or cooling towers), and dry heat transfer (utilizing heat exchangers). The CEQ Report reviews each of these methods. The cooling tower market, however, is the only one relevant from an investment standpoint.

Such structures can be either mechanical or natural-draft (hyperbolic) towers ranging in size from small factory-assembled units to large field-erected towers with capacity to cool several hundred thousand gallons of water per minute. Advances in design technology are resulting in the introduction of newer types—wet-dry and dry cooling towers—which when economically justifiable, can minimize evaporation and reduce or eliminate the visible plume (water vapor mist) emitted from the tower top.

Table 14 shows the relative capital costs of various types of towers. The Cost of Tower column represents estimated values of a turnkey cooling tower project to the manufacturer (in most cases the manufacturers will also construct the tower on site). The Total Installed System

Table 14

**Environmental Control Industry**
**Approximate Capital Cost**
**Comparisons of Tower Styles(a)**
*(Dollars per kilowatt)*

| | Cost of Tower | Total Installed System Cost |
|---|---|---|
| Standard mechanical draft | 1x | 1.8x |
| Concrete mechanical draft | 1.5x | 2.7x |
| Hyperbolic, natural draft | 3-3x | 3-5x |
| Parallel path wet-dry tower | 2-5x | 4-8x |
| Dry tower | 5-8x | 7-11x |

Source: Kidder, Peabody & Co. Incorporated estimates.
(a) For new units: x = approximately $5 and for retrofitted units: x = approximately $10-$25.

Cost segment includes other related expenditures, such as generating capacity to drive fans, auxiliary (outside the tower) piping and pumps, and land. Tower and system costs will also vary with the type of generating facility and whether it is a new plant or a retrofit. Principally due to problems of equipment location and land availability, a retrofit unit will be two to five times more expensive.

Table 15 indicates the estimated size of the markets in 1974. Growth in the power industry market has been spurred by the need for higher-capacity water cooling equipment to meet the requirements of larger generating equipment. Additionally, growth has occurred because of a trend toward locating generating stations closer to coal mine sites which lack natural water supply adequate for total requirements. Nuclear plant construction also stimulates expansion owing to greater water requirements.

Table 15

**Environmental Control Industry**
**1974 Cooling Tower Sales**
*(Dollars in millions)*

| | |
|---|---|
| Utility industry | $ 80 |
| Industrial plants | 45 |
| Air conditioning systems | 40 |
| Total | $165 |

Source: Kidder, Peabody & Co. Incorporated estimates.

In 1964, less than 5% of the power plants under construction utilized cooling towers. In 1974, 40% to 45% used towers, with about 20% served by ponds and the balance by the once-through method. By 1983, between 50% and 70% of new capacity will likely employ cooling towers. The need to conserve water or operate with a limited water supply is also an impetus. More sophisticated (and more expensive) towers in addition to the rate of new plant construction, will dictate market growth.

Sales increases in the industrial sector are keyed to capital spending for new plants and expansion of existing facilities. In addition, a trend toward using higher temperatures in industrial processes, requiring additional cooling at various stages, and toward recycling used water should affect sales.

Growth in the air conditioning markets is directly related to nonresidential construction. Affecting market expansion is a move toward large, centralized systems for office buildings, manufacturing operations, universities, and medical complexes that require towers as large as a small power plant.

### *Solid Wastes*

#### *Collection and Disposal*

In 1971 approximately 320 million tons of refuse were collected in the U.S., of which 265 million tons were privately handled. This waste gathering is performed by over 10,000 private contractors and an untold number of municipally run operations. The CEQ Report views the nature and structure of the collection and disposal industry.

Sanitary landfill should be the disposal method used most during the next few years. The advantage over incineration is basically one of economics. The operating expenses range from $2 to $5 a ton, depending on such items as cost of

labor and equipment, method of operation, and efficiency. Other variables include: distance from collection points, volumes handled, costs of site, geological and hydrological constraints of the location, and types of equipment used. In comparison, incinerator costs could vary from $7 to $25 a ton (including air pollution control costs), without considering the concomitant problems of residue disposal. The principal drawback is public opposition, but an effectively planned and operated area poses few if any of the issues most people fear.

In summary, the rationale for sanitary landfill as compared to other techniques are 1) lower operating costs and an environmentally proven method, and 2) the inherent land value after disposal use.

*Refuse-to-Energy Systems*

Over the past two years, the concept of refuse-to-energy methods has aroused a great deal of interest. In order to put into perspective the potential for these recovery systems, two questions regarding application must be examined. First, to what extent can these systems, by harnessing the Btu content of refuse, solve the problem of domestic energy needs? Second, to what degree can they be used to dispose of the millions of tons of refuse generated each year?

Detailed examination of the data indicates that 1) Under the most optimistic assumptions, burning of refuse could at best provide an energy source equivalent to 424,000 bbl per day (or 2.5% of our current oil consumption); 2) In 10 years, refuse-to-energy systems might be able to handle the disposal of 30 million tons of waste—less than 10% of the tonnage being generated; 3) These systems, however, have meaningful application in major urban areas where land availability is limited; and 4) Rapid market development of major resource recovery systems may be constrained by difficulties such as large financing requirements, non-comparable process systems (which causes difficulty in evaluating contract bids), plant management responsibility and long-term reliability of facilities.

There are two basic types of refuse-to-energy systems: steam generation and fuel processing, the latter encompassing several variations. Typical characteristics and projected costs can be summarized as shown in Table 16.

Table 16

Environmental Control Industry
Selected Resource Recovery Processes

| Process(a) | Estimated Cost per Daily Ton: Capital Investment | Operating Costs | Operating Costs After Fuel Credit | Estimated Energy Recovery | Type of Unit |
|---|---|---|---|---|---|
| Steam generation | $25,000 | $17-$23 | $ 9-$12 | 55%-70% | Steam |
| Fuel processing: | | | | | |
| Solid fuel | 12,000-16,000 | 10 - 16 | 7 - 10 | 70 - 80 | Coal |
| Methanated gas | 21,000 | 28 | 12 - 14 | 50 - 70 | Oil |
| Liquid fuel | 25,000 | 30 | 12 - 14 | 40 - 50 | Oil |
| Incineration | NA | 7 - 25 | – | – | – |
| Landfill | NA | 2 - 5 | – | – | – |

Source: Arthur D. Little, Inc. and Kidder, Peabody & Co. Incorporated estimates.
NA Not available.
(a) All system estimates based on 1,000 tons per day processing capacity.

## PROJECTING MARKET SIZE: 1974-83

### Summary

In the preceding section, estimates of the flange-to-flange equipment portion of various types of air and water pollution control projects were indicated. Although flange-to-flange equipment is the primary market, other business opportunities include associated engineering, auxiliary apparatus, and erection services. Furthermore, production process changes, though not strictly considered control, also represent an additional market for suppliers.

Estimates of air and water pollution control spending by major industry sector were provided by the CEQ and are the starting point for 10-year (1974-83) projections. These gross capital spending figures largely shape the results of the following analysis.

Expenditures for water cleanup remain strong throughout the projection period and actually increase in each of the 10 years through 1983. The air pollution control markets (as defined) exhibit strong growth through 1981, with the exception of a decline in 1978, and then appear to drop off sharply in 1982 and 1983. It may be erroneous, for several reasons, to conclude that demand will peak by 1981. First there is some doubt as to the ability to forecast major industry spending patterns 10 years into the future. A more realistic assessment might be ascertained by looking at 1980 figures in contrast to 1974 numbers. Table 17 presents this summary and indicates substantial growth in each sector. Furthermore, the air pollution control markets analysis contains several built-in biases relative to the water pollution control markets analysis: 1) It is questionable whether the CEQ air pollution spending data fully reflect sulfur oxide scrubbing expenditures that probably will be made in the late 1970s and early 1980s. 2) The potential business opportunities for related combustion systems are not included. 3) New applications of air pollution control equipment, for coal gasification or liquefaction systems or for fine particulate control, are not considered. 4) The recent acceptance of escalation clauses (for material cost increases) may indicate contract values below the actual amounts to be realized (as compared to a fixed-price contract with built-in inflation). and 5) The trend to larger sizing of air pollution control hardware may not be fully reflected.

Table 17

Environmental Control Industry
Selected Environmental Control Markets Summary
*(Dollars in millions)*

| Air pollution control (stationary source only) | 1974 | % of Total | 1980(E) | % of Total | Compound Growth |
|---|---|---|---|---|---|
| Flange-to-flange | $ 310 | 55% | $ 526 | 55% | 9% |
| Related construction and auxilary | 250 | 45 | 434 | 45 | 10 |
| Total | $ 560 | 100% | $ 960 | 100% | 9% |
| Wastewater pollution control | | | | | |
| Municipal equipment | $ 195 | 27% | $ 780 | 31% | 26 |
| Industrial equipment | 285 | 39 | 600 | 24 | 13 |
| Industrial process equipment | 135 | 19 | 690 | 28 | 31 |
| Related construction and auxilary | 110 | 15 | 435 | 17 | 26 |
| Total | $ 725 | 100% | $2,505 | 100% | |
| Total wastewater and air pollution control | $1,285 | | $3,465 | | 18% |

Source: Kidder, Peabody & Co. Incorporated estimates.
(E) Kidder, Peabody & Co. Incorporated estimates.
(a) Projections do not include cooling tower markets. The figures presented at the beginning of this report—a 1974-80 total market compound growth of 16% from $1.5 to $3.7 billion incorporates a very conservative 8% growth pattern to the cooling tower markets.

**Stationary Air Pollution Control**

To derive the potential market for pollution-control equipment relative to total capital investment in air abatement equipment, the following assumptions were made:

1) Capital expenditures for air pollution abatement were broken down into three categories—change-in-process, extras and turnkey—for each type of device. Only the turnkey portion of spending, which ranges from a low of 25% for a gaseous wet scrubber to a high of 60% for a mechanical collector, was used.

2) Within the turnkey section of a contract, further subdivisions were made among flange-to-flange equipment, auxiliary apparatus and erection, as indicated in Table 18.

Table 18

**Environmental Control Industry**
**Current Breakdown of Turnkey Costs**

| | Flange-to-Flange | Auxiliary(a) | Erection |
|---|---|---|---|
| Electrostatic precipitator | 40% | 30% | 30% |
| Fabric filter | 45 | 20 | 35 |
| Mechanical collector | 60 | 15 | 25 |
| Wet scrubber | 20 | 40 | 40 |
| Gaseous wet scrubber | 15 | 45 | 40 |

Source: Kidder, Peabody & Co. Incorporated estimates.
(a) Includes ducts, flues, instrumentation, etc.

3) The flange-to-flange component of turnkey also includes as much as 10% engineering. Flange-to-flange equipment as a percentage of total air abatement expenditures are thus summarized in Table 19.

Table 19

**Environmental Control Industry**
**Flange-to-Flange Equipment as a Percentage of Total**

| | Air Abatement Expenditures |
|---|---|
| Electrostatic precipitator | 18% |
| Fabric filters | 22 |
| Mechanical collectors | 32 |
| Wet scrubbers | 8 |
| Gaseous wet scrubbers | 3 |

Source: Kidder, Peabody & Co. Incorporated estimates.

4) On an industry-by-industry basis, the distribution of equipment expected to apply over the next decade is summarized in Table 20.

Also built into the market projections, shown in Table 21, are lag times between construction starts and actual installation. Total related revenues (auxiliary and erection) vary from 165% to 203% of flange-to-flange equipment over the projection period. In recent years new orders for auxiliary erection services as compiled by the Industrial Gas Cleaning Institute indicate about a 40% ratio of related revenues to flange-to-flange orders, with the remaining 60% going to other contractors. Table 21 assumes equipment suppliers receiving a slightly higher percentage of this business over time—with the related business to equipment ratio rising from 44% in 1974 to 50% in 1980.

**Municipal Wastewater and Industrial Water and Wastewater Control**

The starting point for the evaluation of the municipal wastewater market is the outlays of the federal construction grants program. After adding the appropriate portion of state and local matching funds, an amount (representing the portion of funds estimated to include interceptors and collectors) is subtracted to obtain the treatment plant expenditures. To this figure is applied the percentage projected to represent equipment, starting at 13% in 1974 and increasing to 22% by 1983. Auxiliary and construction revenues were estimated to be 1% of treatment plant expenditures in 1974, rising to a maximum of 4% in 1983 as major suppliers become more important and take on a partial, but still very minor, turnkey role.

The analysis for industrial expenditures is similar. In the aggregate, a typical industrial system is estimated to employ one and one-half to two times as much equipment (in relation to total cost) as a municipal system. The equipment portion should increase over time, possibly more rapidly than the municipal sector will. The equipment ratio used for all industry (a weighted average of the individual businesses) rises from 22% in 1974 to 33% in 1983. During the same period the related construction and other business expands from 5% to 10% of total expenditures.

The equipment portion varies considerably among different industries. When treatment is

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Incorporated

Table 20

Environmental Control Industry
Equipment Market Share by Industry

| | Electrostatic Precipitator | Fabric Filter | Mechanical Collector | Wet Scrubber | Gaseous Wet Scrubber |
|---|---|---|---|---|---|
| Utilities | 55% | 10% | – | – | 35% |
| Pulp and paper | 25 | – | – | 75% | – |
| Iron and steel | 40 | 40 | – | 20 | – |
| Nonferrous metals | – | 60 | – | 40 | – |
| Petroleum refining | – | – | 20% | – | 80 |
| Heating | 40 | 60 | – | – | – |
| Feed mills | – | 100 | – | – | – |
| Cement | 30 | 70 | – | – | – |
| Asphalt | – | 65 | – | 35 | – |
| Sulfuric acid | 40 | – | – | 60 | – |
| Lime manufacturing | – | 50 | – | 50 | – |
| Dry cleaning | – | – | – | – | 100 |
| Nitric acid | – | – | – | – | 100 |
| Natural gas | – | – | – | – | 100 |

Source: Kidder, Peabody & Co. Incorporated estimates.

primarily by end-of-line method, a lower percentage prevails; treatment more integrated with process control changes results in a higher percentage. For example, the pulp and paper and textile industries should have the greatest degree of change in process integration as recovery/reuse of fibers and dyes are attempted. Finishing metals production results in large amounts of waste metals, and there will be increasing economic incentive to reduce these waste products. Extractive and mining applications are presumed to involve an expanding amount of coal washing, which will entail handling and cleaning large amounts of water. On the other hand, the stone, clay, glass, machinery and equipment categories are estimated to employ less hardware and remain

Table 21

Environmental Control Industry
Air Pollution Equipment and Related Markets Projections
*(Dollars in millions)(a)*

| Line | 1974 | 1975 | 1976(E) | 1977(E) | 1978(E) | 1979(E) | 1980(E) | 1981(E) | 1982(E) | 1983(E) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Utilities | $133 | $175 | $175 | $198 | $158 | $250 | $278 | $ 310 | $160 | $115 |
| 2. Industrial | 177 | 220 | 230 | 269 | 225 | 225 | 248 | 230 | 150 | 85 |
| 3. Total equipment market | $310 | $395 | $405 | $457 | $383 | $465 | $526 | $ 540 | $310 | $200 |
| 4. Auxiliary | $263 | $333 | $341 | $388 | $324 | $391 | $445 | $ 455 | $263 | $167 |
| 5. Erection | 300 | 381 | 381 | 442 | 370 | 446 | 423 | 520 | 346 | 239 |
| 6. Total auxiliary erection market | $563 | $714 | $722 | $830 | $694 | $837 | $868 | $ 975 | $609 | $406 |
| 7. Environmental manufacturers share of auxiliary and erection | [illegible] | [illegible] | [illegible] | $390 | $333 | $410 | $434 | $488 | $305 | $203 |

relatively stagnant over the 10-year period (in terms of percentage and not necessarily dollar spending). The CEQ Report presents the assumptions for each industry. Table 22 ranks industry spending by category for the cumulative decade.

**Table 22**

**Environmental Control Industry**
**Cumulative 1974-83 Ranking of Industry Spending in Water Pollution**

1. Chemicals
2. Pulp and paper
3. Machinery and equipment
4. Finishing metals
5. Petroleum
6. Iron and steel
7. Extractive
8. Utilities
9. Foods
10. Textiles
11. Plastics
12. Nonferrous metals
13. Fertilizers
14. Stone, clay, and glass

The results of the analysis are presented in Table 23. The municipal wastewater equipment market, which is roughly 40% of the combined wastewater markets in 1974, increases more rapidly, exceeds the industrial market by 1978, and represents almost 60% by 1983. However, the market for industrial process equipment by 1983 is larger than either of the wastewater markets owing to substantial process control integration and the trend established by the industry spending data supplied by CEQ.

## INDUSTRY STRUCTURE AND PROFITABILITY DETERMINANTS

### Structure

The structural composition of the pollution control industry is best characterized as highly fragmented. There are several reasons why it is difficult to aggregate the participating companies into one identifiable group, as is conventionally done in other industries: 1) The industry evolved from a base of numerous participants, for the most part small in size but including several divisions of much larger corporations. 2) Conventional process use equipment often could be integrated with or modified as environmental control items enabling many firms to gain easy entry into the market. 3) Prior to the legislative enactments of the late 1960s, there was no broad heading under which various segments of the business could be gathered or even related. Most companies therefore pursued separate interests without regard to the interrelationships of the environmental issue. Individual firms were concerned only with immediate competition and sales; long-term pollution control objectives were not pursued.

As laws were passed and national priorities established, these heterogeneous corporations became grouped into an industry, and

**Table 23**

**Environmental Control Industry**
**Municipal and Industrial Water and Wastewater Market Projections**
*(Dollars in millions)(a)*

| | 1974(E) | 1975(E) | 1976(E) | 1977(E) | 1978(E) | 1979(E) | 1980(E) | 1981(E) | 1982(E) | 1983(E) |
|---|---|---|---|---|---|---|---|---|---|---|
| Municipal wastewater equipment | $195 | $245 | $ 320 | $ 400 | $ 530 | $ 620 | $ 730 | $ 852 | $ 980 | $1,120 |
| Industrial wastewater equipment | 285 | 340 | 390 | 440 | 450 | 550 | 600 | 670 | 730 | 800 |
| Industrial process equipment | 135 | 120 | 190 | 330 | 431 | 343 | 690 | 910 | 1,110 | 1,430 |
| Related construction and auxiliaries | 110 | 115 | 165 | 205 | 275 | 345 | 435 | 542 | 663 | 885 |
| Total market potential | $725 | $820 | $1,063 | $1,365 | $1,725 | $2,060 | $2,500 | $2,975 | $3,500 | $4,235 |

Source: Kidder, Peabody & Co. Incorporated estimates.
Note: Numbers may not add to totals because of rounding.
(E) Kidder, Peabody & Co. Incorporated estimates.
(a) 1974 dollars.

consolidation began. A new group of companies emerged with broad environmental expertise established through the acquisition of existing businesses as well as through internal product development. As the industry is now structured, environmentally related concerns—including over a dozen highly visible companies, several divisions of much larger corporations, and numerous small firms—number over 600.

This fragmented and competitive structure, while possibly desirable from the standpoint of users, is not as advantageous for the vendors, for the following reasons: 1) The sheer number of participants has made for intense competitive pricing within the industry. 2) It is feasible for new companies to still enter the field since product lines have experienced relatively minor changes. Although there is little prospect of eventual market domination, a new entrant can develop a comfortable niche. 3) With the outlook for more spending, most firms geared up during the 1960s to meet demand. Regulatory progress has fallen far short of legislative goals and the market has therefore been smaller than some anticipated with price-cutting the norm in order to achieve market penetration. Furthermore, the character of the business itself changed. Concerns were forced to undertake greater construction-related business, and insufficient experience in a traditionally low-margin area led to mistakes that decreased the overall profitability of contracts. For example, estimating errors in labor market and erection conditions, unprecedented inflationary costs and fixed-priced bidding practices eroded earnings. Unforeseen financing burdens needed to carry projects through to completion (progress payments lagged behind actual expenditures) and beyond (retention fees) lowered profit margins even further.

In essence, therefore, profitability and in turn rates of return were adversely affected by the competitive structure of the industry, the less-than-anticipated market size, the inexperience with the construction aspects of contracts, and the changing nature of the marketplace itself.

**Constraints**

The 1973 to early 1975 period was particularly difficult for many pollution control equipment suppliers, as inflation, coupled with materials and certain labor shortages, depressed already slim profit margins. Owing to the relative size and nature of the concerns, operations were significantly affected, causing some major changes in business practices.

Fixed-price contracts, for example, were normal procedure through much of the industry (they are still required in a municipal treatment plant in order to qualify for the grants program; major air pollution control contracts after 1970 were fixed-priced for materials but escalated for construction labor rates and then for materials during 1974). Although manufacturers would incorporate estimated inflation rates into contracts, longer completion times commensurately increased risks. Risk could be reduced by subcontracting materials components at prices corresponding to those provided for in the contract bid.

Not only had expenses risen more rapidly and above anticipated levels but production integration and shipment schedules also were affected by shortages and inability to obtain components on time (if at all). In turn, suppliers were forced to secure materials through alternate channels—a practice which resulted in still-further inflated costs. For example, price indices for steel, one of the principal raw material components in many types of water and air pollution control equipment, gained 45.5% from 1973 to 1975. Service cost rises for fabricating the steel have been even greater. These factors are reflected in the three-year estimated price increases for major types of air pollution control equipment as shown in Table 4. Over the same time span, total installed costs (including construction) of sewage treatment systems gained approximately 37%. Normal lead times, as of 1972, were one to two years for a typical air pollution control contract, and one to four years for a wastewater system. Thus, unanticipated cost increments of this magnitude, coupled with fixed-price contracts, were translated into drastically reduced profit margins.

These statistics, however, do not fully reflect dislocations due to shortages. Lead times of many component parts, such as fabricated steel, motors and gears, castings, and even ball bearings, doubled or more than tripled. In some cases

CHART 1

## PRINCIPAL ENVIRONMENTAL CONTROL INDUSTRY PARTICIPANTS (a)

★ MAJOR PARTICIPATION
● MINOR PARTICIPATION
▲ KP INTENSIVE COVERAGE

| | AIR | | | | WATER | | | | | SOLID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PARTICULATE | SULFUR DIOXIDE | COMBUSTION | MUNICIPAL | INDUSTRIAL | THERMAL | SPECIALTY CHEMICALS | LIQUIDS/TOXICS HANDLING | SERVICES | EQUIPMENT | ENERGY RECYCLING/RECOVERY | ENERGY SERVICES | OTHER BUSINESS EXPOSURE |
| ▲ BROWNING FERRIS INDUSTRIES | | | | | | | | ★ | ★ | | ★ | | |
| ▲ WASTE MANAGEMENT | | | | | | | | ★ | ★ | | ★ | | |
| AMERICAN AIR FILTER | ★ | ★ | | | | | | | | | | | Air-Conditioning and Filtration |
| CARBORUNDUM | ★ | | | ● | ● | | | ● | | ● | ● | | Abrasives, Refractories |
| COMBUSTION EQUIPMENT ASSOCIATES | ★ | ★ | ★ | | | | | | | | ★ | | Air Equipment |
| ECODYNE | | | | ★ | ★ | ★ | | | | | | | Water Treatment |
| ▲ ENVIROTECH | ★ | ★ | | ★ | ★ | | | | | ● | | | Mining Equipment |
| ▲ GENERAL SIGNAL | ● | | | ★ | ★ | | ● | | | | | | Controls and Instrumentation – Transportation |
| MARLEY | | | | | | ★ | | | | | | | Heat Exchangers, Underground Water Resources Engineering Services and Equipment |
| NEPTUNE INTERNATIONAL | | | | ★ | ★ | | | | | | | | Fluid Measuring Meters |
| ▲ PEABODY GALION | ● | ★ | ★ | ★ | ● | | | | | ★ | ● | ★ | Consulting Engineering, Tall Chimneys |
| RESEARCH-COTTRELL | ★ | ★ | | | | ★ | | | | | ● | | Consulting Engineering, Tall Chimneys |
| U. S. FILTER | ★ | ● | | | ● | | ★ | | | | | | Consulting Engineering, Petroleum Catalysts |
| WHEELEBRATOR-FRYE | ★ | | | | | | | | | | ★ | | Consulting Engineering, Tall Chimneys, Specialty Inks, Carpet Papers |
| ZURN | ● | ● | | ● | ● | ★ | | | | | | | Power Generation Systems, Leisure Products |

(a) List is not all inclusive. Other companies with meaningful industry position but where investor interest does not result primarily from participation in these markets are not included (for example, Dorr-Oliver, Rexnord, and Sybron in water; Dresser Industries, Joy Manufacturing, and Koppers in air).

purchases were made from overseas markets, with prices usually 10% to 30% higher than those of normal sources. Even domestically, because of then-existing price controls, supplies were unavailable except on "black markets." It was also commonplace to face shortages in needed steel. Often fabricating shops were at capacity when supplies were available. To circumvent this situation, several major hardware manufacturers expanded in-house fabricating capabilities through acquisition, thus altering their corporate manufacturing structure to accommodate raw material supplies.

The rapid growth in market size as well as intense industry competition caused a high value to be placed on the relatively few experienced environmental engineers. Thus, manpower shortages and turnover affected profitability and contract lead times.

Difficult periods often serve as learning experiences, however. The shortage of trained personnel (a problem which should be decreasing each year), coupled with the increasing size and complexity of major jobs, has resulted in lengthening project lead times. A major precipitator installation, for example, is more likely to run 24 months to 40 months rather than the 12 months to 30 months of two or more years ago. Escalation clauses for materials as well as labor are commonly included in contracts. When contracts remain fixed-priced owing to industrial customer insistence or municipal wastewater regulations, more accurate (or at least larger) inflationary expectations will probably be incorporated. However, even full escalation will not ensure profitability. First, such adjustments are normally tied to published indices, often national for material and local for labor rates. But as mentioned, these official guides will not always reflect conditions such as shortages, special purchases, or fabricating costs. Perhaps equally important, the industry must overcome the severe competition and excessively low bidding practices which hurt the field in the past. Excessive competition resulted in some low-cost contracts with improper design or manufacturing alterations made in an attempt to keep costs down. Such economizing resulted in poor equipment performance over time and substantial cash outlays for repair or replacement, giving the industry a poor image on several counts.

At present, a certain level of maturity has been reached and profitability margins, having stabilized, can be expected to rise in the future for these reasons:

- Further consolidation has occurred. Some companies with major divisions have left the industry—partially because customers realize that use of established firms can best guarantee results and ensure a continuing effort to bring about desired performance.
- User attitudes have changed with greater emphasis placed on efficiency as well as cost.
- Familiarity with equipment and process applications can now prevent errors in design and engender application of more standardized components.
- A sufficient level of proficiency has been attained in the execution of construction-related activities associated with equipment sales (in terms of labor markets, materials procurement, and favorable development of cost-escalated bidding).
- As environmental equipment becomes more operationally complex, a greater potential for service participation exists. This field should be higher profit margin business.
- There are faster progress payments on contracts to reflect material outlays. In addition, front-end payment for engineering, and substitution of performance bonds or letters of credit for retention fees, are becoming more common.

### Principal Industry Participants

Chart 1 displays principal industry participants and indicates the role each plays in the various markets. Those companies identified with a triangle have been selected by Kidder, Peabody Research for intensive coverage. Owing to the unusual relative importance of overall fundamentals for this group of companies, continuing research on the industry level should significantly benefit parties interested in both the remaining companies, as well as the equities included in the Kidder, Peabody *Monthly Earnings Summary*.

Jeffrey A. Klein

# MARKET ANALYSIS
# MUNICIPAL AND INDUSTRIAL WASTE WATER CONTROL EQUIPMENT

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The Bank of New York

Industry Studies

November, 1972

## MUNICIPAL AND INDUSTRIAL WASTE WATER CONTROL EQUIPMENT

### SUMMARY AND OPINION:

The purpose of this report is to provide the background information and analysis necessary to an understanding of the rapidly growing and complex water pollution control equipment markets. Significant differences exist between the municipal and the industrial market sectors of waste water treatment. While both markets utilize similar equipment for liquids/solids separation, the natures of the markets require a significantly different approach to the marketing of the equipment. As a result of a municipal facility being more construction-intensive than an industrial facility, there is a greater time lag between when equipment is contracted for and actually installed in the municipal market. Sales in the municipal market are, thus, spread over a greater period of time. The funds providing for the growth in each of these markets come from different sources. The implication of the existence of these three categorical differences between the market segments is that it is imperative for an equipment manufacturer to understand the differences in order to apply them to his marketing approaches. If so applied, both market segments offer significantly attractive growth opportunities for equipment suppliers.

The 1972 Clean Water Bill toughens water pollution control requirements for industry and authorizes substantially increased funds to subsidize municipal sewage treatment plant construction. The total market for municipal and industrial waste water treatment equipment increased from $90 million in 1965 to $229 million in 1970. We estimate the 1970-1975 average annual growth rate for the municipal sector will be approximately 20% and we project an acceleration to a 25-30% average annual growth rate in the following five year period. The industrial sector will grow at about 20% and 12-15% for the same five year periods. By 1980, the total flange-to-flange equipment market is estimated to approach one and a half billion dollars.

However, when the increased application of turnkey projects, the likelihood of suppliers obtaining service contracts to operate installed equipment, the exposure of waste water equipment suppliers to industrial processing applications, and the foreign market potential are considered, we are led to conclude that the market for equipment and closely related services probably will exceed two billion dollars by the end of this decade. The development of a substantial and significant market for water pollution control equipment and services is thus indicated.

**The Bank of New York**
48 Wall Street, New York, N.Y. 10015. Telephone: 212 530-1095
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**Industry Studies** is prepared by The Investment Research Department, The Bank of New York

Municipal and Industrial Waste Water Control Equipment.....2

*The number of companies participating in the water pollution control field is excessive, but only a small percentage of these organizations have a meaningful stake in and commitment to the industry. Our investment strategy for participating in the growing markets for water pollution control equipment is based on the identification of firms meeting the following criteria:*

- *Necessary reputation and proven reliability of equipment.*

- *Broad equipment line and required engineering expertise.*

- *Significant portion of the company's business in the water pollution control area.*

- *Demonstrated ability to manage acquisitions. A management team with depth is particularly important as there are relatively few highly qualified people with experience in the areas of environmental control.*

- *Major share of the company's business exposed to the other environmental markets, including air, thermal, or solid waste pollution control.*

- *Sufficient market value of shares outstanding to permit institutional investment on a meaningful scale.*

*Although numerous firms meet one or more of the criteria, Envirotech and Ecodyne emerge as the most attractive investment vehicles for participation in the industry. We believe the reputation and reliability of Envirotech's equipment, the breadth of its product line, and its sophisticated marketing strategy (the implementation of which is permitted by financial strength) afford Envirotech some of the most attractive long term fundamentals in the field of environmental control. At $51 a share, or 30 times fiscal 1974 earnings per share, Envirotech is attractive for purchase on both an intermediate and a long-term basis. Ecodyne offers significant exposure to the markets for waste water and thermal pollution control; this 85 percent owned subsidiary of Trans Union recently distributed 750,000 shares in its initial public offering. At $28 a share, or 34 times 1973 earnings, Ecodyne is adequately priced but is attractive for long-term capital appreciation.*

## THE NATURE OF THE PROBLEM:

Waste water contaminants generally consist of unwanted solids and biological wastes as well as chemicals and minerals from industrial operations. The solids tend to settle and fill the waterways or float to the surface as unsightly contaminants. The biological waste will decay in time in the waterways, but in doing so will take much of the oxygen from the water causing odors, promoting destructive algae growth, and killing fish and other marine life.

The two most common measures of water pollution are the weight of the suspended solids and the number of pounds of Biological Oxygen Demand (BOD). BOD is the measure of the dissolved oxygen in water required to degrade biologically the organic polluting matter.

The waste water treatment processes in general use today consist of primary treatment (removal of solids, grit and grease by settling) and secondary treatment (controlled degradation of organic matter either by biological micro-organisms or specialized chemicals). Proper employment of conventional–primary plus secondary–treatment can result in removal of 85 percent of the contaminants (See Table I), but does not remove many nutrients such as nitrogen and phosphorous which contribute to eutrophication of lakes and rivers. In order to render the water suitable for reuse, tertiary or other advanced treatment, which can eliminate up to 95 percent or more of the contaminants, must be applied. The concentrated waste known as sludge, removed by these processes requires separate treatment and disposal.

### TABLE I

### Water Pollution Control Processes

| | Solids Removal (Percent) | BOD Removal (Percent) | Capital Costs* ($ per 1,000 gallons) | Operating Costs* ($ per 1,000 gallons) |
|---|---|---|---|---|
| Primary Treatment | 50 | 35 | 100 | 0.020 |
| Secondary Treatment | 85 | 85 | 175 | 0.020 |
| Tertiary Treatment | 95+ | 95+ | 400 | 0.140 |
| Sludge Treatment | - | - | 75 | 0.040 |

* - Cost Figures Approximate

SOURCES:

–Environmental Protection Agency
–Council on Environmental Quality
–Department of Commerce

Municipal and Industrial Waste Water Control Equipment....4

The two major categories of polluters of the waterways today are municipalities and industry. It has been ascertained that existing treatment facilities remove only 55 to 65 percent of the total water pollutants produced in the United States, e.g., 35 to 45 percent of the contaminants produced are discharged into our waterways. Two recent studies confirm these estimates: In The Cost of Clean Water, published by the Environmental Protection Agency (EPA), it was estimated that between 60 and 65 percent of the pollution produced in the country was reduced by treatment, which means there was an effective discharge of over 35 percent untreated polluted water (Table II).

TABLE II

Source of Waste Water Production
and Discharge in the United States in 1968

| | BOD Produced* | Percent of Total BOD Produced | Percent of BOD Reduced by Treatment | Effective Discharge | Percent of Total Discharged |
|---|---|---|---|---|---|
| Population-Metropolitan and Non-Metropolitan | 23.2 | 19.0% | 64.7% | 35.3% | 17.8% |
| Industries Discharging Through Municipal Facilities | 18.9 | 15.5 | 59.8 | 40.2 | 15.6 |
| Industries Discharging Separately | 80.0 | 65.5 | 61.6 | 38.4 | 66.6 |
| | | 100.0% | | | 100.0% |

* - Million pounds $BOD_5$/day

SOURCE: The Cost of Clean Water, Environmental Protection Agency, March 1971.

In the August, 1971, Report of the Council on Environmental Quality, it was estimated that in 1970 only 70 percent of the population was served by sewers and that 93% of this sewered population was serviced by municipal waste facilities. These municipal operations also provided waste treatment for most small non-waste-intensive industries; for some heavy industry; and nearly all commercial, institutional, and financial establishments. Of the sewered population, 60 percent received at least secondary treatment, 35 percent received only primary treatment and 5 percent received no treatment at all. Thus, roughly 58 percent of our total population had either no sewer system or a sewer system with only primary or no treatment. Assuming 15 percent of the population, in low density areas, need not be served by sewer systems (Bureau of Domestic Commerce, November 1971, Construction Review), this still leaves 43 percent of the population with unserved needs. Investment in these needed facilities and replacement and upgrading of existing facilities are the basis for the growth in the waste water equipment market.

MARKET SECTORS: MUNICIPAL WASTE WATER CONTROL AND INDUSTRIAL WASTE WATER/INDUSTRIAL PROCESS CONTROL:

Significant differences exist between the municipal and industrial markets for waste water equipment. First, while both markets utilize the same equipment for liquids/solids separation, the markets require a significantly different approach to the marketing of the equipment. Second, as the result of a municipal facility being more construction-intensive than an industrial facility, there is a greater time lag between when equipment is contracted for and actually installed in the municipal market. Sales in the municipal market are thus spread over a greater period of time. Third, the funds providing for the growth in each of the markets come from different sources. The implication of the existence of these three categorical differences between the market segments is that it is imperative for an equipment manufacturer to thoroughly understand the differences in order to apply them to his marketing approaches. If so applied, both market segments offer significantly attractive growth opportunities for equipment suppliers.

As shown in Table II, approximately one-third of the nation's wastes are discharged through municipal facilities. Municipal plants are typically designed by independent consulting firms working closely with municipal engineers. The sewage treatment plant must be designed to handle not only municipal waste effluent but any industrial wastes which are discharged into municipal facilities. Based on this design, the municipality typically employs a local contractor who, in turn, contracts (through a process of competitive bidding) with various companies to obtain separate portions of the system for construction.

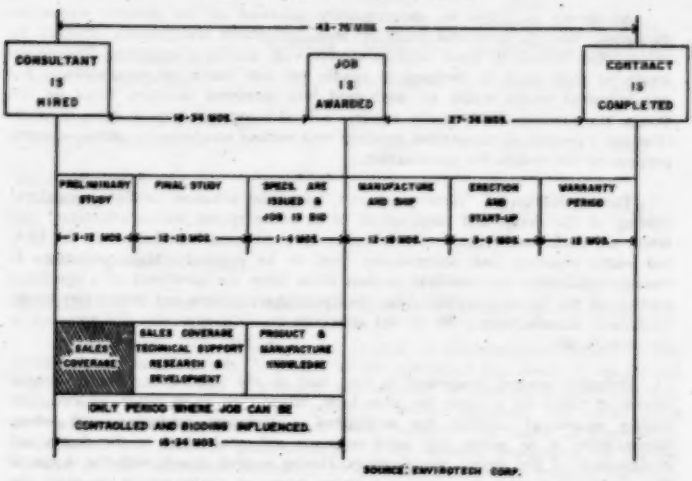
The application of "turnkey projects," i.e., the selection through competitive bidding of the design and construction of an entire system within established cost levels and performance guarantees, is currently undergoing examination by the EPA, but many problems and controversies need to be resolved. (Major resistance to turnkey application to municipal projects stems from the likelihood of a significant portion of the business shifting from the consulting engineers and contractors to the equipment manufacturers.) We do not anticipate the EPA approving this approach in the near future.

Pollution control equipment is thus sold to the municipality or the general contractor often on a piece by piece basis, rather than as an entire system. (One leading equipment supplier has established a technical marketing staff whose responsibility is to advise and assist engineers and contractors in the design and development of the project specifications. Having worked closely with the design of the specifications, and, thus, having a higher degree of confidence in the plans, the supplier is in a position to make a better bid on a more significant portion of the system. This advantageous to all concerned – the equipment supplier, consultant, and contractor – and is proving successful for the firm utilizing this unique approach.)

Municipal and Industrial Waste Water Control Equipment....6

A municipal sewage treatment plant is highly construction-intensive with land, labor, brick mortar, pipes and other plant costs of sewage collection and treatment facilities representing more than 85 percent of expenditures.* The primary market opportunity for pollution control equipment manufacturers is the sale of equipment used in these facilities, which represents 12-15 percent of the total project cost. Due to the nature of the complicated process involved in the planning, designing, bidding and construction of a municipal sewage treatment plant, the time between the hiring of the consultant and the awarding of the bids is 16-34 months and another 29-36 months elapse before the contract is completed. Thus, total project duration is 3½-6 years. This time framework is for major projects; smaller projects can be completed in considerably less time. Furthermore, there appears to be a concerted effort by all parties to shorten the time periods involved. We anticipate movement toward a 1-3 year period for total project duration.

TIME HORIZON-DESIGN AND CONSTRUCTION OF MUNICIPAL SEWAGE TREATMENT PLANTS




SOURCE: ENVIROTECH CORP.

* - The figures discussed in this report do not include the costs of sanitary, storm, or combined sewers which feed into municipal systems. Inclusion of these construction costs would more than double the total cost, but would include virtually no additional pollution control equipment.

While one-third of the nation's waste is discharged through municipal facilities, the remaining two-thirds stem from industries discharging through their own facilities. Industrial waste is generally more concentrated and more uniform (for a given industrial plant) than municipal waste, which simplifies construction costs and often lowers unit treatment investment costs. The wide variation in effluents from industry to industry and plant to plant makes waste treatment in many industries custom processes. Consequently, a turnkey or total systems approach is more applicable to the industrial market.

Thus, from the standpoint of the polluter, the cost to control a unit of industrial pollution may be less than a unit of municipal pollution. This does not imply the use of less hardware, however, as most of the cost differential is from decreased construction costs. In fact, in many cases the equipment costs will be substantially higher due to the custom-process nature of the facility, e.g., handling toxics.

Another difference between municipal and industrial pollution abatement is the wider range of alternatives available to industry. Like municipalities, industries can reduce or even eliminate waste discharges through production process changes and better internal management. Thus, industrial process control has a direct relationship to industrial waste water treatment. This relationship is further strengthened by the fact that the technologies used to increase efficiency of the production process – particle technology, surface chemistry, and separation of dissolved solids – are the same as those involved in controlling pollution in waste water. Consequently, the similarity in technology and equipment and the ability to control waste effluent through internal process changes create a combined market for industrial process control equipment and industrial waste treatment equipment. This interface is of paramount importance in the approach a company must use in marketing its equipment to industry.

This approach, which involves working with an industrial engineer, whose responsibility is to run an efficient manufacturing operation, is thus significantly different from the marketing approach in the municipal equipment market. Furthermore, due to the lesser construction-intensive nature of the project and the frequent necessity to modify or even shut-down plant operations in order to install the waste control system, there is a considerably shorter time period involved.

While the incentive to spend money on pollution control in these two market segments stems from the same source, i.e., legislation and its enforcement, the funds providing for their growth come from different sources. Industrial projects are financed by the industries themselves while municipal projects are funded by the states and the Federal government. Before presenting the historical and projected growth rates of these markets, we will explore the role of Federal Legislation and Funding Procedures.

## THE ROLE OF FEDERAL LEGISLATION AND FEDERAL FUNDING PROCEDURES:

The technology exists today to reclaim waste water to virtually any degree desired, even to the point of making it fit for human consumption. However, spending for pollution control is seldom a voluntary act, and polluters need incentives to initiate and maintain controls. The costs to control water pollution will of course be a function of the required level of pollution removal (See Table III).

TABLE III

Total Cost of Various Levels of Water Pollutant Removal*
(Billions of 1971 Dollars)

| Level of Removal | Total Cost | Cost Per Incremental Percentage Point of Removal |
|---|---|---|
| 85-90% | 61 | 0.7 |
| 95-99% | 119 | 6.0 |
| 100% | 317 | 66.0 |

* - Costs include a 10 year capital expenditure program and 20-25 years of operating costs.

SOURCES:

–Council on Environmental Quality
–Environmental Protection Agency.

The extent to which pollutant removal is required, the rate at which cleanup costs are incurred, and, consequently, the rate at which the markets for pollution control products and services are delveloped are dependent on the passage of laws, the setting of standards, and the degree of enforcement thereof.

### Federal Legislation:

Congressional interest in water pollution was first expressed in an 1866 law, but the act strictly referred to impediments to navigation. In 1899, an amendment to the Rivers and Harbors Act of 1890 authorized the Army Corps of Engineers to issue permits and regulate the discharges of waste of any kind into navigable waters which could hinder or impede navigation. In 1924, Congress passed the Oil Pollution Act to regulate the discharge of oil in coastal waters. Although the Public Health Service became more involved in the health dangers of water pollution, no Federal laws were passed to regulate water pollution until the 1948 Water Pollution Control Act. This was the first Federal involvement in water quality that dealt with public health rather than navigation. It authorized a research program, enforcement actions against pollution of interstate waters, and a modest assistance program of construction loans for waste treatment plants. In 1956, Congress substituted a grant-in-aid program for the loans; the amount of assistance authorized was increased in 1961 and again in 1966.

With enactment of the 1965 Water Quality Act, the Federal government required the establishment and enforcement of water quality standards, to be set by the states and approved by the new Federal Water Pollution Control Administration. (The standards set generally required the equivalent of municipal secondary treatment, removal of at least 85 percent of BOD and settleable suspended solids.) The 1966 Clean Waters Restoration Act, in addition to authorizing $3.4 billion (over the five years) for construction grants, substantially increased authorizations for research and demonstration activities. The Act's passage signaled that water pollution had become a major national concern and the Water Quality Improvement Act of 1970 further strengthened Federal Authority by tying licenses and permits to water pollution control.

In late 1970, the Environmental Protection Agency (EPA) was formed to administer and enforce environmental legislation enacted by Congress for air and water pollution control, solid wastes, pesticides, and radiation. All existing administration concerning the environment, such as the Federal Water Pollution Control Administration, were consolidated into the Agency, under the direction of William D. Ruckelshaus.

New water pollution control legislation has just been enacted. On October 18, 1972, both Houses of Congress overrode a Presidential veto, making law the Clean Water Bill Amendments of 1972. The complex legislation had been almost two years in the making.

The chart in Appendix IA outlines the major provisions of the new Bill. The Bill toughens water pollution control requirements for industry and authorizes substantially increased funds to subsidize municipal sewage treatment plant construction. The $24.6 billion Bill authorizes $18.35 billion for construction of sewage treatment facilities and increases the maximum Federal share of construction costs from 55 to 75 percent.

When this share is combined with the additional grants provided by the states, it will be possible for a municipality to build its treatment facilities with as little as a 10 percent investment. This should create a strong increase in municipal treatment plant expenditures, where the major deterrent to expenditures has been the lack of adequate financing.

While an increase in municipal treatment plant expenditures will be the most direct effect of the new legislation, the establishment of control requirements and procedures for their enforcement will also increase industry's expenditures for waste water control.

Federal Funding Procedures:

As Federal funding is of such importance to the growth in the municipal market, it is important to understand the process by which this funding is put into effect and the problems associated with it. Funds "authorized" by Congress must first be "appropriated" by the Office of Management and Budget (OMB) under the direction of the Adminisation. This appropriation would be to a government department or agency, in this case the EPA, and could be anywhere from a small fraction to 100 percent of the Congressional authorization. This sum of money is then available for use by the EPA for funding of municipal sewage treatment plants.

The EPA next internally "allocates" these available funds to the various states. In the past, this has been done on the basis of state population and income, but under S2770 the funds will be allocated on the basis of need. (A need study will be required every two years, the first of which is due next January. The study will be conducted by the EPA, with the raw data to be submitted to Congress. For fiscal years 1973 and 1974, the allocations will be based on EPA's Cost of Clean Water Report.)

These allocated funds are then "obligated" on a project by project basis as applications are received from the states for their municipal plants. If for some reason there is a slowdown of applications, e.g., in anticipation of a new law which would increase the share of Federal funding, the obligations could be less than the total available for EPA use. Similarly, failure of the applications to meet EPA specifications could result in obligations not keeping pace with increased allocation of funds.

If a state does not use its total allocated portion of funds by six months after the end of the fiscal year, the unused portion is reallocated among the remaining states. The new Bill extends from eighteen to twenty-four months the time period during which a state may use its allocated funds.

Actual "disbursements" or "expenditures" lag these obligations by several years because of delays as bids are let and construction proceeds. These factors cause a substantial time lapse between approval of Congressional spending programs and actual flow of money.

Table IV shows the Federal authorizations, appropriations, and obligations for plant funding and expenditures for waste water treatment constuction grants from 1964 to 1972. The buildup of past obligations plus the implication of the new legislation for more authorized funds point to increasingly large sums being expended at a faster pace over coming years.

TABLE IV

Federal Government Funding of Municipal Waste Water Treatment Facilities
($ Millions)

| Fiscal Year | Funds Authorized | Funds Appropriated | Funds Obligated to Projects | Funds Disbursed |
|---|---|---|---|---|
| 1973E* | 5,000 | 2,500 | | |
| 1972 | 2,000 | 1,650+ | 825 to date** | 413+ |
| 1971 | 1,250 | 1,000 | 990+ | 478 |
| 1970 | 1,000 | 800 | 800 | 176 |
| 1969 | 700 | 214 | 214 | 135 |
| 1968 | 450 | 203 | 203 | 122 |
| 1967 | 150 | 150 | 150 | 84 |
| 1966 | 150 | 121 | 121 | 81 |
| 1965 | 100 | 90 | 90 | 70 |
| 1964 | 100 | 90 | 90 | 66 |

* - Bank of New York Estimates
** - As of October 3, 1972

SOURCES:

–Environmental Protection Agency, Office of Construction Grants
–Cost of Clean Water, Environmental Protection Agency, March 1971
–Environmental Quality: The Second Annual Report of the Council on Environmental Quality, August 1971

Table IV indicates that appropriated funds have been almost fully obligated through 1971. The 1972 appropriated funds will continue to be obligated until at least December 1972. During fiscal 1972, the EPA has experienced a slowdown in the number of construction grant applications. This is attributed to the pending new Clean Water Bill increasing the share of Federal funding. With the passage of the Bill, the rate at which obligations are made is expected to increase rapidly. We do not anticipate any significant negative effect on sales of equipment as a result of the temporary slowdown in 1972.

The following charts show these historical and projected trends.

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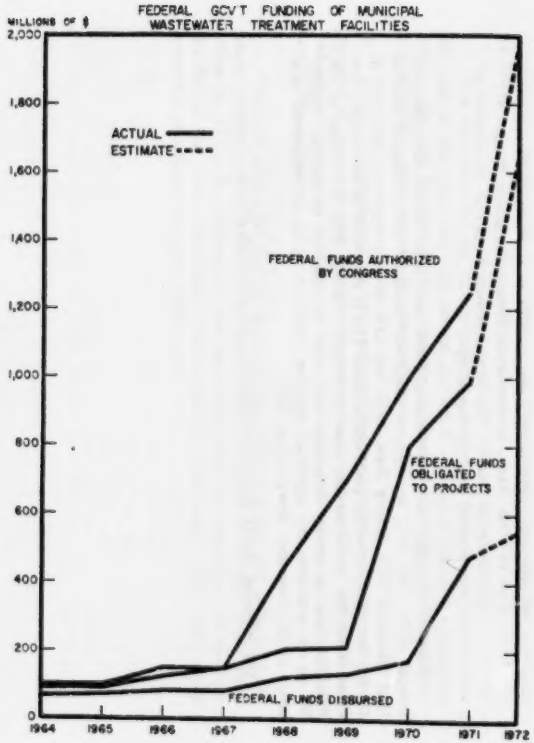
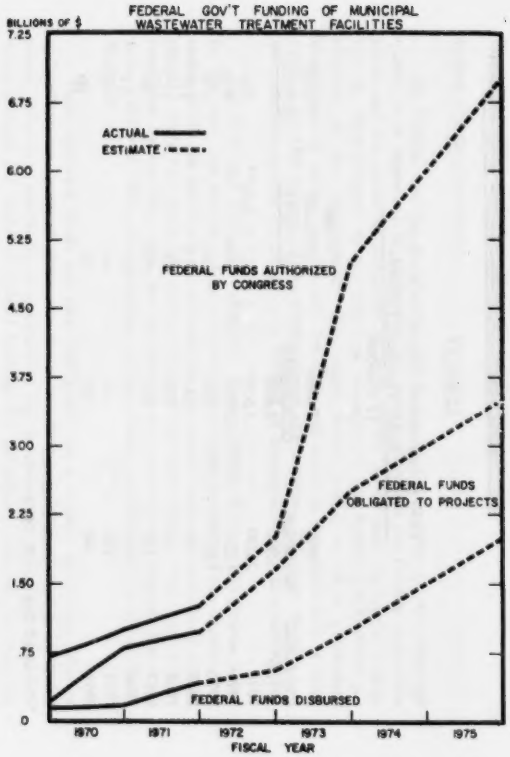

FEDERAL GOV'T FUNDING OF MUNICIPAL WASTEWATER TREATMENT FACILITIES
MILLIONS OF $
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
ACTUAL
ESTIMATE
FEDERAL FUNDS AUTHORIZED BY CONGRESS
FEDERAL FUNDS OBLIGATED TO PROJECTS
FEDERAL FUNDS DISBURSED
1964
1965
1966
1967
1968
1969
1970
1971
1972


FEDERAL GOV'T FUNDING OF MUNICIPAL WASTEWATER TREATMENT FACILITIES
BILLIONS OF $
7.25
6.75
6.00
5.25
4.50
3.75
3.00
2.25
1.50
.75
0
ACTUAL
ESTIMATE
FEDERAL FUNDS AUTHORIZED BY CONGRESS
FEDERAL FUNDS OBLIGATED TO PROJECTS
FEDERAL FUNDS DISBURSED
1970
1971
1972
1973
1974
1975
FISCAL YEAR

## THE SIZE OF THE MARKETS FOR WATER POLLUTION CONTROL EQUIPMENT

A breakdown of major U.S. water and waste water treatment equipment shipments in recent years is shown in Appendix II. This data, based on surveys conducted largely by the Department of Commerce, indicates that the total market for municipal and industrial waste water treatment equipment increased from $90 million in 1965 to $229 million in 1970.

The data in Table V represent our projections for growth in the municipal and industrial equipment markets through 1980. Our sources of information include environmentalists, industry participants, the U.S. Department of Commerce, the Environmental Protection Agency, the Office Management and Budget, and various politicians. The following assumptions are incorporated into the projections:

–Existence of the new Clean Water Bill. Although S2770 calls for fiscal 1973, 1974 and 1975 authorizations of 5, 6 and 7 billion dollars, we estimate contract obligations to be 2.5, 3.0 and 3.5 billion dollars, respectively. We believe this adequately discounts political factors, budget pressures, etc.

–An average of two and a half years lead time in the municipal market; one year lead time in the industrial market.

–An increasing portion of total plant value will be represented by treatment equipment. Contributing to this increase are more complete disposal of sewage sludge through more expensive processes, such as incineration, and increased use of tertiary or advanced treatment by some municipalities and industries. Generally, the higher the treatment level, the more expensive the equipment.

TABLE V

Estimated Growth in Domestic Municipal and Industrial Waste Water Treatment Equipment

| | Sales | | |
|---|---|---|---|
| | Municipal | Industrial | Total |
| 1980 | $800MM | $600MM | $1,400MM |
| 1976 | 295 | 405 | 700 |
| 1975 | 245 | 338 | 583 |
| 1972 | 147 | 178 | 325 |
| 1971 | 121 | 154 | 275 |
| 1970 | 94 | 135 | 229 |
| 1968 | 82 | 56 | 138 |
| 1965 | 56 | 34 | 90 |

Compound Annual Growth Rates

| | Municipal | Industrial | Total |
|---|---|---|---|
| 1980-1975 | 27% | 12% | 19% |
| 1975-1970 | 21% | 21% | 21% |
| 1970-1965 | 11% | 32% | 20% |

SOURCE: The Bank of New York

The industrial and municipal segments are expected to grow at approximately equal rates through the middle of the decade, after which the municipal market should demonstrate accelerated growth. By 1980, this equipment market is estimated to approach one and a half billion dollars.

These equipment figures may, however, well be an understatement of the true market potential. The figures in Table V are for flange-to-flange equipment sales. The increased application of turnkey projects should tend to add engineering fees and in some cases construction revenues to the business generated by equipment manufacturers. In addition, there are indications that some equipment manufacturers may become involved with service contracts for the operation of the hardware they install. Furthermore, the equipment market for industrial application of waste water control exposes the supplier to the market for industrial processing equipment, as discussed earlier in this report. The business exposure for the leading equipment suppliers in industrial processing applications is at least as great as the industrial waste water equipment sales. (This market is more subject to business fluctuations in the economy.) Lastly, Table V does not take into account the potential overseas markets for this equipment. Many of the leading equipment suppliers have significant foreign exposure.

Municipal and Industrial Waste Water Control Equipment.....14

The above considerations lead us to conclude that the market for equipment and closely related services probably will exceed two billion dollars by the end of this decade, indicating a substantial and significant market developing for the suppliers of water pollution control equipment.

## CHARACTERISTICS NEEDED TO COMPETE SUCCESSFULLY IN THE MARKET FOR WATER POLLUTION CONTROL EQUIPMENT:

The primary competitive requirement in the pollution control industry is the ability to construct a system to meet the customer's requirements at the contract price and within contract performance criteria. The key factors which will enable a company to successfully bid for the contract and meet the criteria on a regular basis are:

- Reputation and Proven Reliability
- Broad Line of Equipment and Engineering Staff
- Successful Management of Acquisitions

### Reputation and Proven Reliability:

A substantial portion of the business is concentrated in contracts that amount to millions of dollars and the equipment often must operate for long periods of time without the need for maintenance. The malfunction of one piece of equipment could result in the failure of a municipal treatment plant to operate; in an industrial operation, the failure of the pollution control system might cause the firm to operate in violation of the law, resulting in heavy penalties including fines and prison terms.

For these reasons, a potential customer hesitates to do business with anyone but a contractor with proven reliability, demonstrated by in-place hardware. (The need to have in-place hardware is one of the market's major entrance barriers.) A prerequisite to a good reputation (encompassing competence in technology and service) among consulting engineers, municipalities, and industries is a sound financial position, for proven reliability is often demonstrated by honoring warranties and other liabilities at significant costs to the supplier.

### Broad Line of Equipment and Engineering Staff:

From a user's standpoint, the piecemeal aspect of subcontracting, typical of the industry in the past, has definite drawbacks:

- The uncertainty that components from different suppliers can be effectively integrated;
- The difficulty of projecting and meeting completion schedules when the prime contractor is dependent on many contractors;
- Problems of responsibility of warranty maintenance and liability.

A broad line of equipment, supported by a strong engineering staff, enables a supplier to present the consulting engineer or customer with technical specifications of components designed for a fully integrated system. Therefore, a supplier's ability to provide a total waste treatment package can be an extremely effective marketing tool.

Successful Management of Acquisitions:

The major companies in this business have grown by acquisition. This is traditionally a highly fragmented market. Due to the need for proven reliability and reputation of equipment and the desire to offer a wide selection of such equipment, the leading companies have grown through acquisition of companies already well established in their fields.

As most contracts are competitively bid, margins tend to be low, with little room for error; this is particularly true when a company enters into large contracts. The inability to manage effectively any one acquisition can be the unmaking of a firm. If there is a problem with one acquisition it can take management's attention away from the other divisions, and, consequently, attention is diverted from the growing business. Therefore, the criteria management use to select acquisitions and their ability to effectively integrate these acquisitions into the company are ingredients essential to a company's success.

INDUSTRY PARTICIPANTS: INVESTMENT STRATEGY

The number of companies participating in the water pollution control field is excessive, but only a small percentage of these organizations have a meaningful stake and commitment to the industry. The Department of Commerce study, from which the data in Appendix II was drawn, revealed that 56 percent of the companies surveyed manufactured only one type of equipment for waste water treatment, and that 61 percent of the companies had shipments under $1 million. Many of these companies are marginal in that they have short records or limited management and capital. Others entail great risk in that they represent one-market- or one-product-companies.

A comparatively small number of companies are directing their efforts to providing an integrated product line or a systems approach. The primary manufacturers of such waste water equipment and systems include those shown in Table VI. (Appendix III provides a more complete list of participating equipment manufacturers.)

TABLE VI

Major Participants in the Water Pollution Control Equipment Business*

| Company | Approximate 1971 Annual Sales ($ Millions) | Estimated Percent of Sales in: Water Pollution Control | Pollution Control and Related Areas** |
|---|---|---|---|
| Envirotech | $ 145 | 35% | 75% |
| Rex Chainbelt | 340 | 7 | 20 |
| Dorr-Oliver | 90 | 20 | 30 |
| FMC (Chicago Pump, Link Belt) | 1,350 | 2 | 5 |
| Chicago Bridge and Iron (Walker Process Division) | 370 | 6 | 10 |
| Ecodyne | 76 | 26 | 80 |
| Keene | 125 | 8 | 15 |
| Westinghouse (Infilco) | 4,630 | NA | NA |

* - Table VI includes firms with the most product breadth and market penetration. Other firms with less overall exposure but with strength in selected areas include General Signal, Peabody-Galion, Clow, Sybron, Dravo, Sterling Drug, Neptune Meter, Zurn Industries and U.S. Filter.

** - Includes estimated portion of business exposed to air, water, or solid waste pollution control and industrial processing control.

Despite outstanding growth potential for industry participants, investors should be cautioned as to the risk factors. The competitive nature of the industry has fostered the pirating of good personnel and a company's loss of key management can make the firm vulnerable to its competition. The comparatively low pretax profit margins (typically averaging between 6 and 8 percent) are largely a function of strong competitive bidding on major projects; because of the large dollar value common to these projects, failure to complete a few projects at budgeted cost can seriously impact a company's profits. Also, failure to complete a project within performance limits usually will not only result in a financial penalty to the builder, but, also, can affect its reputation in the industry, impacting future sales. Another effect of large size projects is the occasional quarter-to-quarter fluctuation in backlog. (While these backlog fluctuations will not necessarily produce earnings fluctuations, investor concern is liable to be aroused, creating possible unwarranted stock volatility.)

Our investment strategy is to identify those firms with the most attractive long term fundamentals and to minimize exposure to the risks involved. Investment participation in the growing markets for water pollution control equipment is based on the identification of firms meeting the following criteria:

(1) Necessary reputation and proven reliability.

(2) Broad equipment line and required engineering expertise.

(3) Significant portion of the company's business in the water pollution control area.

(4) Successful track record and demonstrated ability to manage acquisitions. A management team with depth is particularly important as there are relatively few highly qualified people with experience in the areas of environmental control.

(5) Major share of the company's business exposed to the other environmental markets, including air, thermal or solid waste pollution control.

(6) Sufficient market value of shares outstanding to permit institutional investment on a meaningful scale.

Inclusion in Table VI was based on a company's having met criteria (1) and (2). Application of criteria (3) eliminates all but Dorr-Oliver, Ecodyne, and Envirotech. The following table summarizes the remaining investment criteria:

TABLE VII

Application of Investment Criteria

| Company | (4) Successful Track Record/Management Depth | (5) Total Company Exposure to Environmental Control | (6) Shares Outstanding/ Size of Float |
|---|---|---|---|
| Dorr-Oliver | Questionable | 30% | 2.4mm/0.9mm |
| Ecodyne | Yes | 80 | 5.0mm/0.75mm |
| Envirotech | Yes | 75 | 3.8mm/2.1mm |

Dorr-Oliver has for many years been a leader in liquids/solids separation techniques and now supplies a broad range of equipment and services to the chemical, petrochemical, mineral, food, pharmaceutical, and pulp and paper processing industries. Market penetration and experience from its exposure to the processing industries put Dorr-Oliver in a position which should have enabled the company to dominate the waste water control equipment market. A combination of ill-fated ventures (coal mines and air cargo handling equipment) and the loss of many field and sales personnel (who have joined Dorr-Oliver's competitors) has

resulted in poor earnings in recent years. Although results for 1972 should benefit from disposal of unprofitable businesses, cost reduction efforts, and better volume so that a profit will probably be reported (versus reported losses since 1967), it is generally acknowledged that Dorr-Oliver has lost its historic position of leadership in the waste water equipment market. The fine reputation and breadth of its equipment line and the financial resources available through its major stockholder (Curtiss-Wright owns 62.5 percent) do, however, provide the opportunity for Dorr-Oliver to significantly participate in the business. At this point in time, however, Dorr-Oliver is more involved in the processing industries and is, thus, heavily dependent on capital spending cycles.

Envirotech and Ecodyne, our preferred investment vehicles in these markets, are discussed on the following pages.

## ENVIROTECH CORPORATION

DJIA - 943

| 1972 Range | Current Price | Earnings Per Share* 1974E | 1973E | 1972 | Div. | % Yield | PER 1974E | 1973E |
|---|---|---|---|---|---|---|---|---|
| 60-32 | 51 | $1.70 | $1.45 | $1.24 | None | - | 30.0 | 35.2 |

* - Fiscal year ends March 31; Fully diluted

Capitalization(000)(9/30/72):

$ 1,300 Long Term Debt
$60,390 Shareholders Equity
(3,745 Common Shares Outstanding)
(2,124 Common Shares Freely Traded)

### OPINION:

Envirotech represents one of the more fundamentally attractive investments in the field of environmental control. Founded in February 1969, with $20 million of privately raised capital, Envirotech embarked on an acquisition program to bring together select companies producing equipment for waste water treatment and the control of industrial air pollution. The Company has demonstrated an impressive financial record to date and management and operations are being structured to achieve long term growth.

We believe the emergence of Envirotech as the premier company in the waste water equipment markets is the result of its innovative marketing strategy (the implementation of which is permitted by financial strength), supported by the reputation and reliability of its equipment and the breadth of its product line. Significant inroads in the industrial air pollution control markets are being made and its strong position in the tunneling and mining equipment industry should be maintained and should continue to be profitable.

Revenues in fiscal 1973 are expected to advance to $170 million from $146 million in 1972 with an earnings per share advance of 17 percent to $1.45 from $1.24. In fiscal 1974 we anticipate revenues approaching the $200 million level with earnings per share exceeding $1.70. We expect Envirotech's internal growth rate to accelerate after 1974 as both municipal and industrial water pollution control projects now being planned and financed reach the hardware stage. At $51 a share, Envirotech common is selling at 30 times our fiscal 1974 estimate and is attractive for purchase on both an intermediate and a long-term basis.

### RECENT DEVELOPMENTS:

Since our Company Memorandum of August 25, 1972, three significant developments have occurred. At the time of that writing, the Clean Water Bill of 1972 had not yet been passed; with its passage on October 18 the major restraint on near term growth in the municipal and industrial waste water equipment markets has been removed.

Secondly, Envirotech reported earnings above those we had expected for the second fiscal quarter. We had anticipated earnings per share to be flat to up slightly, primarily due to the seven week strike at the Salt Lake City plants (as discussed in our Current Company Comments of August 24). We believe the better than expected results are due to a combination of rapid resumption of the shipment schedule in Salt Lake City and to a strong profit contribution from the air pollution group.

First and Second Fiscal Quarter Reported Results
(Fiscal Year Ending March 31)

| | 1st Qtr. | | 2nd Qtr. | |
|---|---|---|---|---|
| | 1972 | 1971 | 1972 | 1971 |
| Sales (000) | $40,242(+27%) | $31,696 | $37,115(+16%) | $32,052 |
| Net Income (000) | $ 1,431(+45%) | $ 986 | $ 1,027(+37%) | $ 749 |
| EPS | $0.38(+19%) | $0.32 | $0.26(+13%) | $0.23 |
| Avg. Shares Outs. (MM) | 3.80 | 3.11 | 3.85 | 3.15 |

Fiscal 1973 Estimated Revenues and Earnings

| | 1973E | 1972 |
|---|---|---|
| Total Revenues (MM) | $170.4(+17%) | $145.8 |
| Sales (MM) | $169.1 | $144.6 |
| Pre-tax Income (MM) | $ 10.6(+25%) | $ 8.5 |
| Pre-tax Margin | 6.3% | 5.9% |
| Net Income (MM) | $ 5.5(+25%) | $ 4.4 |
| Net Margin | 3.3% | 3.1% |
| EPS | $1.45(+17%) | $1.24 |
| Avg. Shares Outs. (MM) | 3.8 | 3.5 |

We just returned from the Water Pollution Control Federation (WPCF) Annual Conference, held this year in Atlanta. Interviews with leading consulting and municipal engineers throughout the country indicate that our confidence in the competitively advantageous position occupied by Envirotech in the industry is more than justified. Furthermore, in Atlanta, Envirotech publicly announced the formation of a new department, known as Environmental Operating Services (EOS), to provide a variety of operating services for municipal water and waste water treatment plants. Management indicates that at the present time the start-up and training service for solids handling systems is in the greatest demand. EOS provides an experienced Envirotech operator on site for one-year, a plant personnel training program, a computerized maintenance system, and an operating cost optimization program. The cost of the service to the customer is estimated to be equal to the operating cost savings achieved during the first two years of operations. EOS services are already under contract at a number of waste water treatment plants including Burlingame, California; Billings, Montana; East Lansing, Michigan; and Lower Allen Township, Pennsylvania.

FINANCIAL COMMENTS:

Envirotech's balance sheet, dated March 31, 1971, indicated long term debt of $7.0 million and shareholders' equity of $56.8 million, or a debt-to-equity ratio of 12%. Since that time, however, the company has eliminated almost all U.S. long-term debt ($5.7 million due through 1976) and shareholders' equity has increased $3.6 million as a result of the June 13, 1972, public secondary offering. The current debt-to-equity ratio is thus 2.2%. A warrant to purchase 300,000 shares of common stock at $12.50 per share ($3.75 million aggregate exercise price) was exercised in June by Ogden Corporation, thereby eliminating further dilutive effects of the warrant.

The Company continues to generate a positive cash flow and is in a strong position to finance its growth internally and through possible acquisitions. At this juncture, no equity financing is anticipated within the next year.

INVESTMENT CONSIDERATIONS:

As a result of Envirotech's unique position in the industry, its anticipated earnings growth of 15-25% annually in coming years, and its favorable long term outlook, we are forecasting the following multiple assumptions and price projections which we believe to be reasonable:

Price Matrix

| | | Projected PER | | |
|---|---|---|---|---|
| Fiscal Year | EPS* | Low: 25x | High: 40x | Premium: 45x |
| 1974 | $1.70 | $43 | $68 | $77 |
| 1973 | $1.45 | 36 | 58 | 65 |

Stock Market Data

| Year | EPS* | Price Range** | PER Range** |
|---|---|---|---|
| 1973 to date | $1.45 | $ 60-32 | 41-22 |
| 1972 | $1.24 | 36-23 | 29-19 |

* - Fully-diluted, Fiscal year.
** - Calendar year.

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## ECODYNE CORPORATION

DJIA - 943

| 1972 Range | Current Price | Earnings Per Share 1973E | 1972E | 1971 | Div. | % Yield | PER 1973E |
|---|---|---|---|---|---|---|---|
| 31-20 | 28 | $0.82 | $0.71 | $0.62 | None | - | 34.1 |

Capitalization(000)(7/20/72):

None Long Term Debt
$37,619 Shareholders Equity
(5,000 Common Shares Outstanding)
( 750 Common Shares Freely Traded)

### INVESTMENT OPINION:

Ecodyne, an 85 percent-owned subsidiary of Trans-Union Corporation, offers significant exposure to the markets for waste water and thermal pollution control. Its initial public offering in July, 1972, distributed 750 thousand shares to the public.

Earnings per share are expected to be up 15 percent this year due to increased cost controls and increased royalties, while sales remained flat. Revenues in 1973 are expected to advance to $88 million from $77 million in 1972, with an earnings per share advance of 15 percent to $0.83 from $0.71. At $28 a share, Ecodyne is selling at 34 times our 1973 earnings estimate and is adequately priced on a near-term basis but is attractive for long-term capital appreciation.

### BACKGROUND:

Ecodyne is a diversified company devoted exclusively to water treatment, water cooling, and waste treatment. Organized in 1970 for the purpose of combining into one corporate structure the several existing water and waste treatment operations owned by Trans Union Corp., Ecodyne is now comprised of seven divisions:

Divisions of Ecodyne

| Division | Date Acquired by Trans Union | Business |
|---|---|---|
| Graver Water Conditioning | 1957 | Designs systems and equipment for commercial and industrial water conditioning. |
| Smith and Loveless | 1959 | Manufactures factory-built sewage treatment units and pump stations. |
| Lindsay | 1959 | Produces water softness for home use. |
| Mec-O-Matic | 1968 | Manufactures chemical feed pumps. |

| | | |
|---|---|---|
| Fluor Products (now Ecodyne Cooling Products) | 1969 | Designs and erects water cooling towers. |
| Unitech | Formed in 1967 | Formed as divisions of Graver to engineer and design evaporators and other products. |
| McKenzie-Ris Mfg. (MRM) | 1971 | Manufactures air cooled heat exchangers. |

Also, in 1970, Ecodyne Limited was formed to continue the operations carried on previously through Trans Union in Canada.

Ecodyne's product sales fall into four categories:

Ecodyne Sales by Product Classes ($MM)

| | 1972E | 1971 | 1970 | 1969 | 1968 | 1967 |
|---|---|---|---|---|---|---|
| Water and Other Liquid Cooling Equipment | $25.9 | $23.4 | $19.8 | $11.4 | $ 2.0 | $ 2.4 |
| Water Treatment Equipment | 17.4 | 21.6 | 18.5 | 15.7 | 13.4 | 12.9 |
| Waste Water and Sewage Treatment Equipment | 20.5 | 19.9 | 17.8 | 12.5 | 13.8 | 9.7 |
| Residential Water Softeners | 11.8 | 10.8 | 9.4 | 9.4 | 8.4 | 8.7 |
| Total Sales | $75.6 | $75.7 | $65.5 | $49.0 | $37.6 | $33.7 |

Ecodyne's cooling equipment is used by industry for cooling and condensing water and other liquids prior to processing, recycling, or discharge; electrical utilities require cooling towers to dissipate heat produced in the generation of power. The three principal products are mechanical and natural draft cooling towers and air cooled heat exchangers. The market for cooling towers over the next five years will be growing at an annual average rate of approximately 20 percent, largely influenced by the need for utilities to control their thermal discharge. Ecodyne has an estimated 30-40 percent of the mechanical cooling tower market (Marley has about 50 percent). (Note that the increase in Ecodyne's sales in 1969 was caused largely by the acquisition of Ecodyne Cooling Products, treated as a purchase.) In 1971, Ecodyne received its first order for a natural draft tower; the project is scheduled for completion in late 1973 and is progressing well. This market is dominated by Marley and Research Cottrell. Air cooled heat exchangers are used primarily in the chemical, petrochemical, and oil industries and by electrical utility plants to cool various liquid process streams.

Ecodyne engineers and designs a broad line of water treatment equipment (ion exchangers, clarifiers, deaerators, filters, evaporators) which is usually manufactured by independent fabricating shops. Industry, utilities and municipalities use the equipment to treat water by removing contaminants and solids, concentrating solutions, and injecting special additives. This segment of Ecodyne's business is largely dependent on the cyclical nature of the process industries. The almost 20 percent decline in this group for 1972 is attributed to a slowness in the process industries.

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Ecodyne engineers and manufactures equipment for the transfer and treatment of sewage. Factory-built and field-erected sewage treatment plants utilizing biological treatment (primary and secondary levels) are designed to handle the requirements of small communities of up to 50,000 people. Ecodyne intends to compete in the growing markets for larger municipal and industrial projects,, but does not have a competitively advantageous position at this time. Ecodyne has developed a physical-chemical process to treat municipal waste water which is highly effective in removal of nutrients and solids from the sewage, producing water of better quality than possible with a biological system. A plant utilizing this new process is being built at Rosemount, Minnesota, and will be in operation by early 1973.

Residential water softeners and filters are designed and manufactured to remove contaminants and minerals from home water supplies. An average annual growth rate for this market is estimated at 4-6 percent, but could be effected by yearly fluctuations in variables such as consumer spending and housing starts. Distribution through Sears accounts for more than 50 percent of sales of residential water softeners.

NEAR AND INTERMEDIATE TERM OUTLOOK:

Through a combination of product and market diversification Ecodyne is able to avoid the cyclical pattern in of any one market segment. Industrial customers typically represent 35-45 percent of sales; electric utilities 20-30 percent; municipal about 20 percent; and residential about 15 percent. Thus, in the current year, the decline in the water treatment product line, caused by a slowdown of capital spending by industry for new plant additions, is expected to be largely offset by increased sales to the utilities and other sectors.

A combination of increased internal cost controls and increased royalties (foreign licensees in Europe and Japan) enabled Ecodyne to report for the 9 months an increase in earnings per share of 11 percent on a 4 percent decline in revenues. The anticipated strong performance in the final quarter is expected to bring revenues for the year up to last year's level and earnings per share 15 percent ahead of last year ($0.03-0.04 of the $0.09 earnings increment is from increased royalties.) The strong fourth quarter results from seasonal factors which cause the closing of a large portion of contracts in the backlog. Of the September 30 backlog of $69 million, $20.5 million is scheduled for closing in the final quarter of 1972.

| | 9 Month Results | | Full Year | |
|---|---|---|---|---|
| | 1972 | 1971 | 1972 | 1971 |
| Revenues (000) | $51,258(-40%) | $53,392 | $76,900 (-) | $76,653 |
| Net Income (000) | $ 1,764(+16%) | $ 1,515 | $ 3,240(+23%) | $ 2,626 |
| EPS | $0.40(+11%) | $0.36 | $0.71 (+15%) | $0.62 |
| Avg. Shares Outs. (MM) | 4.46 | 4.25 | 4.59 | 4.25 |

Approximately 60 percent of yearly sales are booked and closed in the same year. For example, of the $59 million backlog at year end 1971, $30 million was scheduled to close in 1972. Thus, if our sales estimate of $75-76 million is realized, $45-46 million will have been booked and closed in by the end of 1972.

Including the $8.4 million order for mechanical cooling towers (from TVA) booked in early October, backlog is now $77.4 million. Approximately $31.6 million and $25.3 million are expected to be closed in 1973 and 1974, respectively.

Scheduled Closings of Backlog
(Millions)

| Year | 9/30 Backlog | | New Contract | | Total Scheduled Closings |
|---|---|---|---|---|---|
| | 69.0 | + | 8.4 | = | 77.4 |
| 1972 | 20.5 | | | | 20.5 |
| 1973 | 26.2 | + | 5.4 | = | 31.6 |
| 1974 | 22.3 | + | 3.0 | = | 25.3 |

For 1973, the combination of increased capital expenditures by the processing industries and the increased business from the utility and municipal sectors is expected to boost sales approximately 15 percent to the $87 million level, resulting in earnings per share of $0.82-0.83.

FINANCIAL COMMENTS:

The approximately $14 million raised by the public sale of 750,000 shares in July 1972 was used to retire $11 million of bank debt and increase working capital. Ecodyne has a 5:1 current ratio with no long term debt. With no major plant expansions scheduled at this time, the existing lines of credit ($11 million at prime rate) and the availability of the financial resources of its parent, Trans Union Corporation, place Ecodyne in a strong position to finance growth. At this junction, no equity or long term debt financing is anticipated within the next year.

The percentage-of-completion method of accounting is used for long-term contracts only when the company has no responsibility for on-site construction or installation. Otherwise, the completed contract method is used; approximately 70 percent of business is recorded on the completed contract method.

Financial Highlights

| | 1972E | 1971 | 1970 | 1969 | 1968 | 1967 |
|---|---|---|---|---|---|---|
| Sales ($MM) | 75.6 | 75.7 | 65.5 | 49.0 | 37.6 | 33.7 |
| Royalties & Other ($MM) | 1.3 | 1.0 | 0.7 | 0.4 | 0.3 | 0.3 |
| Total Revenues ($MM) | 76.9 | 76.7 | 66.2 | 49.4 | 37.9 | 34.0 |
| Pretax Income ($MM) | 6.1 | 5.0 | 4.4 | 2.3 | 3.1 | 2.8 |
| Pretax Margin (%) | 7.9% | 6.5% | 6.6% | 4.6% | 8.2% | 8.3% |
| Net Income ($MM) | 3.2 | 2.6 | 2.2 | 1.1 | 1.5 | 1.5 |
| Net Margin | 4.2% | 3.4% | 3.3% | 2.2% | 3.9% | 4.3% |
| EPS | $0.71 | $0.62 | $0.52 | $0.26 | $0.35 | $0.34 |
| Shs. Outs. (MM) | 4.59 | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 |

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The reduction in net income in 1969 is the result primarily of a four week strike at a U.S. plant and a decline in Canadian sales.

INVESTMENT CONSIDERATIONS:

The major challenges facing Ecodyne are the penetration of the large municipal waste water market and the natural draft cooling tower business. Notwithstanding the limitation of its small market capitalization (750,000 shares @ $28=$21 million), Ecodyne is an attractive investment vehicle through which to participate in the many segments of the water field.

Because of Ecodyne's attractive position, its anticipated earnings growth of 15-20% annually in coming years, and its favorable long term outlook, we are forecasting the following multiple assumptions and price projections which we believe to be reasonable:

Price Matrix

| Year | EPS | Projected PER Low: 25x | High: 35x | Premium: 45x |
|---|---|---|---|---|
| 1973 | $0.82E | $21 | $29 | $37 |
| 1972 | $0.71E | 18 | 25 | 32 |

Stock Market Data

| Year | EPS | Price Range | PER Range |
|---|---|---|---|
| 1972 | $0.71E | $31-20 | 43-28 |

JAK:HDP

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## APPENDIX IA

### 1972 Water Pollution Control Act

A summary of major provisions in the bill is included below. Probably the most significant provisions for industry include the establishment of a new permit program and clarification of EPA requirements under the National Environmental Policy Act (NEPA).

An entirely new permit program is set up to be administered by EPA and implemented, primarily, by the states. (The Corps of Engineers is no longer involved.) Within a year of enactment EPA must establish effluent guidelines for at least 28-30 industrial categories as a basis for the permits. The permits will theoretically require each industry to meet effluent levels achievable by the "best practicable technology" by July 1977; and to meet more stringent levels achievable by the "best available technology" by July 1, 1983. EPS retains a permit-to-permit veto authority until the states begin operating under EPA guidelines. Existing 1899 Refuse Act permits are accepted as permits under the new program, but no additional 1899 Act permits will be issued.

When enacted, the new law will also redefine EPA responsibilities under the National Environmental Policy Act (NEPA). A 1971 federal court decision had prohibited issuance by EPA of additional permits unless an environmental impact statement as required by Section 102 of NEPA is included. The new law will exempt EPA from issuing 102 impact statements with each permit. Impact statements will be required only when permits are granted for construction of new point (industrial) sources and for new waste treatment plants.

### Summary

| | |
|---|---|
| Total Authorized Spending | $24.6 billion |
| Total Authorized Construction Grants | $18.0 billion (for plants and collection systems)<br>$5.0 billion in FY 1973<br>$6.0 billion in FY 1974<br>$7.0 billion in 1975 |
| Construction Grant Authority | Is contract obligation authority and does not require annual appropriations from Congress. |
| Grant Allocation | On basis of need according to EPA 1972-1974 Economics of Clean Water report. |
| Share of Construction Costs | 75% Federal Grant<br>25% State/Local |
| Reimbursement of Earlier Projects | $2.7 billion |

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| | |
|---|---|
| SBA Loans | $800 million in loan funds for small businesses for financing pollution control facilities, to be administered by the SBA. |
| Environmental Financing Authority | $100 million authorized for three years to help localities finance local share of treatment plant costs. |
| Standards | Best practicable technology by July 1, 1977.<br>Best available technology by July 1, 1983.<br>No pollution by 1985, "goal", not requirement.<br>Industries dumping into municipal treatment systems required to meet pre-treatment standards. |
| Intake Requirements | Location of intake of waters for all sources must be designed for the best environmental impact. |
| Pollution Goal Study | 15-man commission instead of National Academy of Sciences to study impact of 1983 requirements and 1985 goal. Five each appointed by President, House and Senate. |
| Permit Program | New permit program with guidelines established, to be administered by EPA. States must implement. EPA has veto on permit-by-permit basis until state begins operating under guidelines.<br>Existing 1899 Refuse Act permits are accepted as permits under the new permit program but no additional 1899 permits will be issued. |
| NEPA | No 102 impact statements are required for permits except for new sources and construction grants for new plants. |
| Citizen Suits | Citizen suits against government or private interest allowed where citizen(s) have an "interest" in the litigation. |

## APPENDIX IB

### Comparison of Major Differences Between House and Senate Versions of the 1972 Water Pollution Control Bill

| TOPIC | HOUSE | SENATE |
|---|---|---|
| Total authorized spending | $24.6 billion | $20.0 billion |
| Authorized construction grants | $20.0 billion<br>$2 billion in FY 72<br>$5 billion in FY 73<br>$6 billion in FY 74<br>$7 billion in FY 75 | $14.0 billion<br>$2 billion in FY 72<br>$3 billion in FY 73<br>$4 billion in FY 74<br>$5 billion in FY 75 |
| Basis for allotment of grants | State need | State population |
| Sewage collection systems | Eligible for grants | No similar provision |
| Matching Provisions Federal Share | 60% without state aid<br>75% with 15% state aid | 55% without state aid<br>70% with 10% state aid |
| Community Share | 10% to 40% | 20% to 45% |
| Reimbursement for Projects Completed between 1956-71 | $2.75 billion | $2.4 billion |
| "No discharge" provision | National goal | National policy |
| | "Best practicable" technology by 1976.<br>"Best available" technology by 1981. | Similar provisions, but makes it firm "policy" not just "goal". |
| | Requires a study by the National Academy of Sciences to determine the effects of meeting 1981 and 1985 requirements. | No similar provisions. |

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| TOPIC | HOUSE | SENATE |
|---|---|---|
| "No discharge" provision (continued) | After evaluating report, Congress would have to reaffirm commitment to requirements. | |
| Financing authority | Establishes an authority with an initial authorization of $100 million to help localities finance the non-federal share of construction projects. | No similar provision |
| SBA loan fund | Establishes SBA loan fund of $800 million for use in financing pollution control facilities for small businesses. | No similar provision |
| Permit program | Establishes a federal-state permit program. | Similar |
| | Prohibits new permits under 1899 Refuse Act. | Keeps intact the 1899 Refuse Act program |
| | Gives EPA only the option of taking over a state's entire water-quality regulation programf it is dissatisfied with a single permit or group of permits for plants in a particular industry or river basin. | Gives EPA permit-by-permit veto power |
| Citizen suits | Authorizes citizen suits, but requires a citizen or environmental group to establish a direct interest in the action contemplated or to have particulated from the outset in the administrative proceedings regarding the action. | Allows any person to bring suit |

## APPENDIX II

### U.S. Water Treatment Equipment Shipments
($ Millions)

#### By Application

| | 1965 | | 1968 | | 1970 | |
|---|---|---|---|---|---|---|
| | Water Supply | Waste Water Disposal | Water Supply | Waste Water Disposal | Water Supply | Waste Water Disposal |
| Industrial* | 28.4 | 23.6 | 62.0 | 38.8 | 112.2 | 94.3 |
| Municipal* | 54.4 | 53.4 | 69.4 | 78.3 | 52.0 | 89.6 |
| Total | 82.8 | 77.0 | 131.4 | 117.1 | 164.2 | 183.9 |

#### By Major Items

| | 1965 | 1968 | 1970 |
|---|---|---|---|
| Total | 159.8 | 248.5 | 348.1 |
| Major Items | | | |
| Aerators | 8.7 | 18.3 | 23.7 |
| Chlorinators | 15.1 | 13.0 | 12.2 |
| Dewatering, Incineration, Wet Combustion | 5.2 | 21.1 | 25.8 |
| Ion Exchange Units | 5.3 | 26.8 | 49.4 |
| Meters and Controls | 33.4 | 35.1 | 51.4 |
| Pumps | 34.2 | 35.5 | 51.1 |
| Sedimentation | 9.7 | 14.6 | 20.3 |
| Package Pumping Stations | 5.7 | 12.0 | 16.4 |
| Package Treatment Plants | 16.4 | 25.3 | 29.6 |

* Notes: Industrial equipment statistics represent an estimated 70% of the equipment sold in each year.
Municipal equipment statistics represent an estimated 95% of the equipment sold in each year.

SOURCE: U.S. Department of Commerce, Construction Review, October/November 1971.

Municipal and Industrial Waste Water Control Equipment.....32

## APPENDIX III

### Selected Manufacturers of Waste Water Treatment Products and Equipment*

| Company | Relative Breadth of Product Line | | | |
|---|---|---|---|---|
| | Least | Limited | Fairly | Most Complete |
| Aerojet General | X | | | |
| Ajax International | X | | | |
| Allis-Chalmers | X | | | |
| American Machine and Foundry | | XX | | |
| Ametek Filtration Engineers | X | | | |
| Beloit | | XX | | |
| Bird & Son | X | | | |
| Cardwell Machine | X | | | |
| Chicago Bridge and Iron (Walker Process Division) | | | XXX | |
| Clow Corp. | | XX | | |
| Coca-Cola (Aqua-Chem) | X | | | |
| Combustion Engineering | | XX | | |
| Crane | X | | | |
| Culligan | X | | | |
| Dorr-Oliver | | | | XXXX |
| Davis Industries | | XX | | |
| Dravo | X | | | |
| Ecodyne | | | | XXXX |
| E.I. duPont de Nemours | X | | | |
| Envirotech Corp. | | | | XXXX |
| FMC (Chicago Pump, Link Belt) | | | | XXXX |
| General American Transport | | XX | | |
| General Signal Corp. (BIF, Aurora pumps, Mixco) | | XX | | |
| Harsco | | XX | | |
| Hungerford & Terry | X | | | |
| Ionics | X | | | |
| Keene Corp. | | | XXX | |
| Komline - Sanderson Engineering | X | | | |
| Lakeside Engineering | | XX | | |

Municipal and Industrial Waste Water Control Equipment.....33

| Company | Relative Breadth of Product Line | | | |
|---|---|---|---|---|
| | Least | Limited | Fairly | Most Complete |
| Met-Pro Water Treatment | X | | | |
| Midland Ross | X | | | |
| Monogram Industries | X | | | |
| Monsanto Enviro-Chem Systems | | XX | | |
| Neptune Meter (Neptune, Microfloc, Nichols Research & Engineering) | | XX | | |
| Peabody-Galion Corp. | | XX | | |
| Penwalt | X | | | |
| Petrolite | X | | | |
| Rex Chainbelt | | | | XXXX |
| Rollins International | | XX | | |
| Standard Oil (N.J.) | X | | | |
| Sterling Drug (Zimpro) | X | | | |
| Sweco | | XX | | |
| Sybron | | | XXX | |
| U.S. Filter | | XX | | |
| Westinghouse (Infilco) | | | XXX | |
| Zurn Industries | | XX | | |

* - List includes most major manufacturers but does not purport to include all firms participating in the industry.

Mr. MINETA. You note in your statement that the originally assessed needs for this program of about $24 billion in 1972 has increased severalfold, to roughly over $100 billion. I might note that including treatment of storm water flows, the needs are $163 billion, according to an EPA 1978 Needs Survey.

We also note that annual appropriations unadjusted for inflation are decreasing further, widening the resource versus needs gap. Obviously, if we are to achieve water quality goals in any realistic time frame, we are going to have to look to the equipment and technology people to develop considerably cheaper and more energy efficient technologies. Yet you note in your statement that there is growing uncertainty as to the profitability of this market for equipment suppliers.

So this leads me to ask two questions. First, are there already new technologies which have been developed over the last several years, that are not getting into this program?

Mr. KLEIN. I believe there are, Mr. Chairman. Again, I caution recognition that I am not a technical expert either, as I am not a congressional expert. I have looked at many alternative technologies, both here in the United States and in Europe and the Far East. I believe there are equipment and systems capable of meeting our objective of secondary and even more stringent removal of contaminants.

However, to apply that technology, we have to recognize that it may, dollar for dollar over time, be much more cost effective, but the initial installation cost may be more expensive. We have to evaluate that as a cost-effective approach in order to utilize the adoption of such equipment. This equipment is available. Its suc-

cessful use has been demonstrated. But it costs money to research and develop these projects, and in order to maintain continuity, companies have to justify a fair return on their investment.

To date the program has not encouraged utilization of that technology.

Mr. MINETA. How do you view the value of increasing inflation, which may require lower than expected construction funding by Congress, as compared with increasing this program's appropriations? Will a balanced Federal budget, or money for the treatment industry be better for the pollution control industry's stability picture?

Mr. KLEIN. Mr. Chairman, as I indicated, part of my professional responsibilities are to balance alternative areas, and keep things within the context of not just a given industry sector, or an industry or worldwide economic condition.

I think it is of paramount importance that we take steps within our power to alleviate the inflation problem which we are facing in this country. One of the ways to help address this problem is to control the Federal budget. I think in order to answer the question regarding what level of funding should be provided to the construction grant program we have to do it in the context of the total Government budget, and in the context of the benefits which we might accrue relative to the cost. This is why I think it is of paramount importance to be able to assess the time necessary to implement this program.

If, for example, we judge that cleaning up the Nation's waters, or the lack of cleaning up the Nation's waters may have a serious adverse consequence on human health over a short-time period, then the program should be given a higher priority within the context of the Federal budget, and maybe the program should be achieved in a 5- to 10-year period from now.

If, however, we think this is a program which has long-term benefit, but that can be implemented sucessfully from a human health standpoint over a 20-year program, then it would be appropriate to scale back the program possibly to the level it has already been scaled back to. I think one has to assess the cost in dollar terms, and the cost in human and health and other terms, in order to answer the question properly.

I think probably 10 years ago the benefit—the problems associated with dirty waters in our country were more severe than they are today, because I think despite the problems, the program has made some headway in the municipal program we are talking about, and industry has also made a great deal of headway over the last 8 years.

I think there are other environmental needs that might be more pressing. Everyone is familiar with the Love Canal incident, which may be of serious health concern to local populations, to drinking water supplies. That type of problem probably justifies higher priority than the building of new sewage treatment plants today. But I think that is a long answer to your question.

I think we must assess the needs. I think there is no question that the drinking water quality, and the overall wastewater quality of our Nation does need further upgrading. It is our responsibility

to assess the benefits and the costs associated, in order to decide on an appropriate timetable.

Mr. MINETA. From the advent of the 1972 act, did industry gear itself to the 10-year period of getting to fishable-swimmable waters and then, finding that the program's timetable was stretching out, reflecting that in its production and R. & D. effort and everything else?

Mr. KLEIN. Industry appears to have moved much more rapidly in implementing the intent of the 1972 and the 1977 acts. Industry has moved more rapidly than municipalities. The municipalities had other reasons to fall back on. Some of it was bureaucracy, some of it was trouble with financing, and some were local factors. Those were the municipalities' fallback. Industry did not have quite the same excuses.

During 1970 to 1976 they made a great deal of progress in upgrading their industrial waste discharges. Since that time, there has been relatively little done to further upgrade existing facilities because the basic thrust of the 1977 amendments, as we move into the eighties, is to upgrade and make more efficient plant design on new and expanding plants. We are largely through what we call the retrofit aspects of it. This expenditure on new plants and more efficient systems with a few exceptions basically will be a function of plant expansion in the various industries that are also major users of water and hence water polluters.

This country has not been in an expansionary phase in those industries such as chemicals, or refining, or petroleum. Minerals is probably the only practicing industry that has been doing any expansion.

Mr. MINETA. What about the 1977 amendment which provided for 85 percent grants for innovative and alternative technologies instead of the 75-percent grant? Does that additional 10-percent grant offset any price disadvantages?

Mr. KLEIN. To the best of my knowledge, it did not. From what I have been able to ascertain, it is a benefit to the local project, the local municipality involved, but it has not provided the major incremental stimulus for the equipment suppliers.

Mr. MINETA. And you stated something to the effect that we do not have life cycle costing. So, to that extent, there has not been anything to encourage development and use of innovative technologies which might be cheaper in the long run and more energy efficient.

Mr. KLEIN. That is correct. There are several systems that I am aware of that place major emphasis on reducing energy consumption and reducing maintenance costs. These systems have not been aggressivey employed because of their initial high cost on a capital basis.

Mr. MINETA. Thank you.

Mr. Clinger?

Mr. CLINGER. You indicated the various incentives have not been effective. What sort of incentives do you think would be effective? What sort of provisions would provide the incentive to industry to move into more aggressive research and development?

Mr. KLEIN. If the redtape somehow could be lessened; if a life cycle evaluation could be included so that if somebody designs a

system and demonstrates a system over a 10- or 20-year period, it could be designated as a proprietary product and therefore specify; if the cash payments could be expedited so that working capital on a working project could be minimized in these days of the very high cost of money, then there would be incentive to develop proprietary products which would have advantages and to install them as efficiently as possible because there would be a more rapid return to the equipment supplier and a more fair return on his investment.

So any series of mechanisms which would serve to reduce the redtape, which would improve planning procedures, second, enable specifications of those equipment which can perform to proprietary advantage and, third, to expedite payment, those would be of major benefit.

Mr. CLINGER. What about reducing the time involved in the overall process, from 10 to 7½ years?

Mr. KLEIN. That would be of great assistance.

Mr. CLINGER. Your statement suggests that the goals of the Clean Water Act, particularly as they relate to municipal compliance, should be reassessed, taking into account the impact of inflation and focusing on the cost impact of the municipal clean water needs.

You addressed this somewhat briefly, but what, in your opinion, should the goals of the program be in light of the economic factors that presently exist? I gather you talk in terms of reassessing priorities.

Mr. KLEIN. I do not mean to imply that I would like to have a reassessment of the program in order that major changes be made because I think, frankly, the period of time it would take to implement any such changes could cause further forestallment of the events of the program.

But, for example, the earlier need estimates, the very early needs estimates of less than $24 billion, had the majority of dollars earmarked for treatment plant work. Today, the $167 billion project consists of six separate categories of which probably four relate to items that pertain to the treatment plant.

So we have expanded partly through a better data base the scope of this entire program. The 1977 amendments require a minimum 25-percent allocation of funds to interceptors and other pipe infiltration systems. These systems might be just as important to the system functioning as the equipment itself but it seems to me that we have been shrinking focus on that part of the system which is designed to do the job, clean the water. It is possible that reassessment and maybe designing the plants to keep the water and then over a larger period of time feed into it an expanding sewer system so that we have the technical aspects in place, built maybe to be expanded further in 10 or 15 years, and that we have the equipment functioning and then gradually filter in the growing sewage volume, is one alternative.

Mr. CLINGER. Would it help to push back the dates of the acts, in other words the deadlines of the act?

Mr. KLEIN. I do not think the dates themselves are what is crucial. The 1972 act had certain dates and the dates were missed and, in reality, what penalties were imposed upon the municipal-

ities? So I think I am not convinced a date change will have any impact other than giving greater credibility to the act in terms of its timetable and goal.

Mr. CLINGER. You have indicated that there are not sufficient incentives in the program as it exists to encourage research and development for the municipal markets.

I am wondering if there are any incentives within the industrial sector to generate this kind of R. & D. and if this would not be transferable to the municipalities?

Mr. KLEIN. There are incentives in the industrial sector but they are not necessarily transferrable. The key incentive in the industrial sector is your ability to demonstrate cost effectiveness to an engineer, to price your product accordingly, and therefore the major incentive is in your ability to negotiate based on your product's uniqueness and your ability to earn a fair return. The industrial market is quite different from the municipal market although the technical pieces of equipment are quite similar. The application of those pieces of equipment is quite different. In an industrial facility, the equipment is tailor made to fit into the design configurations. If it is a pulp and paper mill, for example, it is very possible that the wastewater treatment equipment may be used just to treat the effluent or it may be used to treat the effluent in order to recycle the water in order to increase the product yield.

While an aerator or a clarifier or a pump or filter may be the same as used in a municipal treatment plant, it is being custom designed to integrate with a process which will require on the part of that equipment supplier a key understanding of what engineering process is involved. The industrial effluent is also much more likely to be specialized and more concentrated in specific pollutants.

On the other hand, the equipment supplier does not have this flexibility of design, does not have the ability to demonstrate proprietary knowledge and have to design the system to a wider range and more dilute form of pollutant.

Mr. CLINGER. Is there an international market for this sort of thing?

Mr. KLEIN. There are non-U.S. markets but there is no common ground international market. I am right now in the process of examining the European and Far Eastern markets. But, as we have seen in our country, a good deal of the spending for environmental control has been dictated by legislation.

When we look at other markets, it is the same thing. There are many, many small markets in Europe rather than one multinational market. I do not have the data at my fingers.

Mr. CLINGER. Concerning the failure of half of the plants to meet design specifications, what do you attribute this failure to?

Mr. KLEIN. I think it is probably twofold. First, it is that some of the equipment installation and system design was not properly executed and, second, and probably more importantly, I think the training of operators and the maintenance programs of these programs is subpar.

I would hazard a guess that we could easily move the percentage of some one-half to something like three-quarters—at least three-quarters that would operate properly if they were more effectively

operated. If we had some program to train and monitor equipment maintenance more effectively.

Mr. CLINGER. Thank you.

Mr. MINETA. Thank you.

Mr. Young?

Mr. YOUNG. Mr. Klein, you noted that the forecast for the pollution control equipment industry was growing until about 1978. Then your testimony makes me think that what happened to cause you to change your analysis was a decrease in the amount appropriated in the fiscal years 1979 and 1980 from that authorized. But at the point you say the market began to show signs of deterioration, EPA and the States obligated several billion dollars—during the last part of fiscal 1977. Could you elaborate? What happened? Why do the prospects look so bad for pollution control devices?

In your testimony you indicate a decrease from $800 million down to a $500 million investment.

Mr. KLEIN. No, Mr. Young. The analysis indicated that we have been projecting a 1980 market of $800 million. That instead we have revised our estimates downward to $500 million, but that $500 million is still larger than the 1977 estimate of $375 million. So the market is still growing but it is growing at a much slower than anticipated rate.

The reasons for this are manyfold. Part of it is that the overall level of construction put in place is well below that which was forecasted. I have a chart over here which shows the sewage treatment plant construction trends. I can submit a copy later for the record. This one line would show the construction start of sewage treatment plants in the United States. In the 1971 to 1975 period, the figures moved up appreciably. In the 1976–77 period, the market was down to flat, and in the short period of time of 1978, which corresponds to the flow through of some of the earlier obligated projects in the construction stage, it surged toward the end of 1978 and it is now embarked in a fairly aggressive decline back to this plateau that it has been in since the beginning of 1975.

So, funds are coming out of this pipeline but they are coming out at an erratic pace and because the momentum of the program has not been maintained, we are now in the position of where we are running in place to barely stay even. That is based on the fact that the overall dollars are not accelerated any longer. And this chart does not deal with the equipment, but a smaller percentage is being allocated to treatment plants than that earlier expected and, of course, all are buying less value because a 1979 dollar is worth a good deal less than a 1972 dollar.

Mr. MINETA. Would you yield?

I would like to draw your attention to chart No. 4. You will note that starting in fiscal year 1980, obligations will begin to accede appropriations and that the projected rate of obligations which will result from less expensive step 1 and 2 projects, proceeding to the more costly construction stage, will eat into the so-called unobligated balances in the program.

How does this potential shortfall, as the chart implies, affect your opinion about the profitability of the pollution control equipment market and your current forecast for the industry?

Mr. KLEIN. Mr. Chairman, it effectively supports the conclusion which I have been seeing in the marketplace over the recent term, but the prospects for any meaningful sustained growth are diminishing rapidly, and the predictability growing out of several years is also diminishing. If one looked at the levels there, it would indicate that with a pending appropriation level below that of the obligation rate, it implies that the market cannot grow in dollar terms let alone in real terms and it appears to be reinforcing the analysis that several industries, participants, are in the process of making, of considering leaving the market entirely.

I might backtrack for a moment and comment on how a company involved in this or any other business has a responsibility to to its shareholders to attempt to plan, not just on a 6-months or a 12-month basis, but on a 1 to 3 to 5 year period. If, after several years, 5 or 8 years, of inability to forecast accurately, they are faced with a situation where the next 2 years appear to be highly uncertain, it gives them a great deal of difficulty in forecasting with confidence a 3- to 5-year period. That makes it very difficult to forecast capital needs, to forecast manpower needs and it is in a period like that it is the responsibility of management to consider alternative areas in which for them to invest their firm's funds.

Mr. MINETA. So, with that kind of appropriation situation, with equipment manufacturers pulling out, what would you say are the implications in achieving the clean water goal?

Mr. KLEIN. I would say that the implications of achieving the clean water goal, certainly within the time envisioned, appear very unrealistic.

Mr. YOUNG. I yield back.

Mr. MINETA. Mr. Royer?

Mr. ROYER. I want to say thank you to you. In the last few months, I have had the opportunity to sit on two oversight hearings, this one and the oversight hearing on the Urban Mass Transportation Administration. I have to tell you they are completely consistent. The testimony we heard there indicated we needed to produce buses and that there was a great demand, but instead of providing incentives, we somehow provided disincentives that cut the production in half and caused the prices to double.

I am saddened to again hear there is a demand to get the projects on line, but we are doing the same things in this area. I notice most of the testimony in the other hearing was consistent that somehow we have not been providing the program needed stability and predictability. That was the situation in mass transit. Somehow we have not provided proper goals for this program, just as you have indicated.

Methods must be found to reduce redtape and so on.

I am wondering if either the industry or you, Mr. Klein, have any specific recommendations to make regarding how we can be consistent. You have made some generalized statements. For specific recommendations, do you have the expertise to tell us what we need to do, to tell us what we need to do to get going both in areas where there is a great demand and where somehow we have provided disincentives for manufacturers to even want to be in the business?

Mr. KLEIN. There are specific recommendations. I am not in a position today to cite a list of how the Government can reduce redtape, and I do not claim to be in a position to offer advice to the Federal Government to do that. But there are systems that work. There are equipment manufacturers capable of producing equipment to meet our needs. There are consulting engineers fully capable of designing those systems to reduce overall costs, to maximize cost effectiveness. I think we need to set up the goal specifically, and if a system comes in that can meet certain criteria for demonstrating proficiency, like the goal cost evaluations, I think the mechanism should be made to fund that program as expeditiously as possible.

How we get through the redtape of dealing with a local municipality and then a State and interphasing with a local and a Federal EPA involvement—I would be happy to try to examine the issue, but I have not made it an objective of my analysis, to come up with recommendations to improve that process.

Mr. ROYER. Mr. Klein, the staff has handed me a list of Federal Executive orders. We might give you a list and you can review it. If you have any comments for the record, we would like to hear them.

For the record I would certainly like to make it clear that we have some problems in this particular area which we certainly ought to be zeroing in on. It seems to me those problems affect a lot of agencies we are doing business with.

I would like to follow up on Mr. Clinger's question in terms of failing to meet the design specifications. That, I find a little hard to believe. Regarding plants in my district, the contractors were required to follow the specifications closely. I don't believe you are referring to the fact that in most instances we are designing plants that cannot have the capability to meet the need. In my particular district many plants were already obsolete as far as capacity was concerned prior to the plants being completed. As a matter of fact, some communities were being asked to make application for expansion programs before the plants were even finished.

I am wondering if these two things should not be put together?

Mr. KLEIN. I agree. That also ties in with a suggestion I made earlier in terms of when you design a plant, the plant design should be aimed at a long-term perspective and maybe we should be designing efficient plants with anticipated add-ons in 5 or 10 years, given growth in sewage volume and then gradually feed into the plant the larger volume 5 or 8 years down the road.

So I agree, part of the problem is the poor performance of the plans is the lack of foresight in the planning aspect. But this is further compounded by the length it takes to build a plant. If it takes 7 years to design and build and start up a plant——

Mr. ROYER. It seems to me if you are making plans for expansion before you are finished building the plant, it seems to me you ought to be able to combine the two.

This question is a bit naive but the $9 billion that you talk about that was impounded by the Nixon administration, why was that done?

Mr. KLEIN. I am not so sure that I am the one that should answer that. The initial request—I refer to any members of the

committee to correct me. The 1972 authorization authorized $18 billion for a 3-year period for the funding of this program. The funding shifted from a 55-percent to a 75-percent funding. The act authorized $18 billion. What President Nixon did at the time was phase in the program for a longer than 3-year period and cut back the funding.

Mr. OBERSTAR [presiding]. That is about as good an explanation as one can give.

Mr. ROYER. I might follow it up with a question. It seems the funding has deteriorated, evidently in the past 2 or 3 years. Is that because some of the funds have not been expended and Congress decided not to fund on that basis, or is it just that we were saving bucks?

Mr. OBERSTAR. In the years since then, I think that Congress—let me go back to 1972 when President Nixon vetoed the Water Pollution Act.

It was overriden by a 10-to-1 vote on the House floor. So there was a great sense of reluctance on the part of the administration. I go back even further in history. In 1960, Richard Nixon was then Vice President and Eisenhower vetoed the first attempt to expand on the 1956 act for water pollution with a message that said water pollution is uniquely a local blight that would only be impeded by Federal effort. It was shortsighted then. It is a view that is shortsighted now, and it is one with which Congress has attempted to cope with. Congress has been in the forefront of water pollution.

We had this kind of a contest this year already with the Appropriations Committee wanting to hold back on appropriations, saying that they had not spent the money they had. The point is that that money was in the pipeline in various stages of approval. I think the Appropriations Committee really did not understand the program set up by the legislative process.

Mr. CLINGER. As I understand, the Appropriations Committee provided actually less than what OMB recommended.

I certainly commend the Congress for what they are doing. I would like to commend them a little later on when this is straightened out, when we get the programs finished.

I would like to conclude by saying I certainly concur with the statement of the chairman in his opening remarks and certainly yours, Mr. Clinger, on behalf of Mr. Cleveland.

Mr. OBERSTAR. I thank the gentleman for his observations.

The Chair recognizes the gentleman from Georgia.

Mr. LEVITAS. I have a number of questions but I should observe that a number of us are also on the Aviation Subcommittee which is commencing at this hour. That is where some of the other members have gone, and I will have to leave, although I am vitally interested in these hearings.

One of the concerns which has already been touched upon and was expressed also in the report by the National Commission on Water Quality, was that there was little incentive for consulting engineers to incorporate new innovative or alternative kinds of technology. The report noted that to do so was almost surely to invite delays because of the excessive reviews triggered by EPA and, in some cases, by State officials as well.

Since the objective was to move projects through as fast as possible in order to obligate the construction grant allotments, there was little incentive for something that was not tried and true.

What I am interested in is if this phenomenon is something that you have observed and whether it has played a part in your analysis in the past and at the present?

Mr. KLEIN. It is my understanding that there were going to be some gentlemen from the consulting engineering industry that might be also able to address that question. From my perspective, I have not found that the consulting engineers are reluctant to encourage the use of such equipment but rather that the terms of the grant program, in terms of application for grant and approval, have made it a disincentive to attempt to incorporate such innovative technologies. The use of innovative technologies, I think, can be misconstrued.

The consulting engineer has a tendency to want to make sure that his device and system will work properly. They will not normally take a system or a device off the drawing board, install it in a large municipal system, if that piece of equipment has not been demonstrated to perform highly before. It has to do with a concern which is called a professional judgment.

But, in general, they have encouraged, wherever possible, the use of equipment designed and systems that have been developed and that have demonstrated improved operating efficiency or reliability. I doubt very highly that that is the particular rocking point in the program.

Mr. LEVITAS. In your statement to the committee, you have pointed to certain areas where you think—new and innovative technologies could be encouraged such as life cycle costing——

Mr. KLEIN. May I make a comment? That should not be innovative by this time. I think we are all too aware of the cost to operate anything in terms of its maintenance costs, replacement costs, energy costs. It is almost unjustifiable to ignore that. That should not be innovative. That should be basic commonsense.

Mr. LEVITAS. I am not suggesting that life-cycle costing is innovative. What I am suggesting is that by using life-cycle costing as a method in terms of the technology that should be installed, you are looking to go to newer technologies rather than some of the older ones. Also your proposal to designate in a proprietary product would also have that tendency, I take it.

I regret that I have to go to the Aviation markup. But I am still, first of all, in doubt and do not understand what incentives the engineer would have as such to come to new technologies when it makes a lot more sense to reach up on the shelf and pull down one that was put in Peoria and then put into some town in Alabama this year rather than go to some new type of technology that someone is trying to hustle.

Second, my question really is directed as to whether your analysis that you have described as to the operation of the program and its efficiency has factored into it this reluctance to go to new technologies? Is that part of your consideration?

Mr. KLEIN. It is part of the consideration. I believe it was in 1975 when one section of Public Law 92-500 was interpreted by both the

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courts and EPA in terms of limiting the professional judgment of the consulting engineer and no longer permitting them to specify certain types of equipment. At that juncture, it became clear that there was going to be a lessening of the ability of the engineer to use this professional judgment. I think part of the stimulation or the stimuli for an engineer to employ the proper equipment is the same that causes us all to strive to do our jobs well, in that he has a professional role. He is in a position to exercise his best judgment in order to provide a system or unit that is going to serve his customer best. That is what his professional responsibilities are.

I think the removal of this ability to utilize that judgment earmarked at the beginning, of any problems in this program, results from that.

Mr. LEVITAS. Thank you.

Mr. OBERSTAR. I thank the gentleman for his comments.

Mr. ROE. I regret that I ironically just had a group of municipalities in from my State. I only read the synopsis of your testimony. I regret that I did not hear the rest of it because I think the point you are making is that pollution control equipment is not a good investment with the erratic implementation of the program.

Mr. KLEIN. The sector of the pollution control industry dealing with the municipal wastewater sector, that is correct.

Mr. ROE. I will have to defer.

Mr. OBERSTAR. Thank you very much, Mr. Klein. We appreciate your contribution.

Our next witnesses are a consulting engineering panel, Mr. Greenlund and Mr. Jones.

Thank you for being with us today. We look forward to your presentation.

Will the witnesses please rise.

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. GREENLUND. I do.

Mr. JONES. I do.

Mr. BORY. I do.

Mr. OBERSTAR. Please proceed.

**TESTIMONY OF CONSULTING ENGINEERS PANEL CONSISTING OF TRACY W. GREENLUND, PRESIDENT, TRACY ENGINEERS, INC., CAMP HILL, PA.; CHARLES H. JONES, VICE PRESIDENT, JORDAN, JONES & GOULDING, INC., ATLANTA, GA.; ACCOMPANIED BY LAURENCE D. BORY, GOVERNMENT AFFAIRS LIAISON, AMERICAN CONSULTING ENGINEERS COUNCIL, WASHINGTON, D.C.**

Mr. GREENLUND. My name is Tracy Greenlund. I am a consulting engineer from Pennsylvania.

I would, first of all, like to express my appreciation for the privilege of testifying before the committee. It gives me an opportunity to say to the people who really are going to have an influence on things, the things I have been trying to say to my municipal clients and to my clients for years. It is a wonderful opportunity and I appreciate it.

I am the President of a rather small consulting firm in Pennsylvania. Not a large firm but we do, I think, a significant amount of work. Over the years we have been involved in a large number of wastewater treatment projects covering a whole spectrum of Federal programs through the early 1960's on.

In view of some of the comments of Mr. Klein and the preceding testimony and the fact that I have submitted to the committee a lengthy statement, I might deviate from my oral testimony.

Mr. OBERSTAR. That statement will appear in the record in full at this point and you may extemporize as you see fit.

[The following was received for the record:]

TRACY ENGINEERS, INC.
CONSULTING ENGINEERS
BOX 703, 702 LISBURN ROAD CAMP HILL, PA. 17011
TELEPHONE 761-8883
AREA CODE 717

TRACY W. GREENLUND, P.E.
FRANK S. GROTTOLA
JERRY E. BECKER
NICHOLAS J. MARCUCCI, P.E.

JOHN C. GURBOROW, P.E.
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ADVANCED WASTE TREATMENT
WATER SUPPLY & TREATMENT
INDUSTRIAL WASTE TREATMENT
MUNICIPAL INCINERATION
MUNICIPAL ENGINEERING
COMPREHENSIVE REGIONAL PLANNING
STORM DRAINAGE
FINANCIAL ANALYSES
UTILITY RATE STUDIES

ORAL TESTIMONY

OF

TRACY W. GREENLUND

BEFORE

SUBCOMMITTEE ON OVERSIGHT AND REVIEW

OF

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

HOUSE OF REPRESENTATIVES

CONGRESS OF THE UNITED STATES

OCTOBER 30, 1979

INTRODUCTION

I should like to express my appreciation to this committee for the privilege of appearing before you to offer my comments on the Construction Grants Program as it is currently administered by the Environmental Protection Agency under PL 92-500.

My name is Tracy W. Greenlund, and I am President of Tracy Engineers, Inc., a Consulting Engineering firm located in Camp Hill, Pennsylvania, a suburb of the State Capitol, Harrisburg. Our firm was founded in 1958 and has operated continuously since that date.

Tracy Engineers, Inc. is a relatively small consulting firm, with a staff that has varied over the years between 20 and 45 persons, depending upon the scope of activities in progress at any given specific period. Our current staff numbers 26, and is comprised of a number of multi-talented engineers and technicians who are capable of completing a variety of assignments.

Our primary area of work activity is throughout the Commonwealth of Pennsylvania, although we have performed work in Maryland, New Jersey and Connecticut.

Our area of specialty is the discipline of Wastewater Treatment, with additional specialties in the areas of Wastewater Collection; and Water Supply, Water Treatment and Water Distribution. We also offer a complete service with respect to Storm Water Management and Control.

I should like to offer this morning in my oral testimony, comments on five (5) specific items. This oral testimony is supplemented by a more comprehensive written testimony which has been submitted to the Subcommittee.

SUMMARY OF INVOLVEMENT IN GRANT PROJECTS

Federal assistance in the form of grant programs have been involved in the majority of our Wastewater Treatment Projects. In 21 years of operation, our firm has designed and supervised the construction of 33 Wastewater Treatment Facilities, 9 Water Supply Systems, and 5 Water Treatment Facilities. The Wastewater Treatment Projects have ranged in size from facilities for 750 population equivalents, to 40,000 population equivalents.

Seventeen of the 33 Wastewater Treatment Projects have involved forms of grant activity emanating from the Environmental Protection Agency (EPA), and its predecessor organizations, the Federal Water Quality Administration (FWQA), and the Federal Water Pollution Control Administration (FWPCA). Seven of the 33 projects were involved in grant programs administered by the Department of Housing and Urban Development (HUD), or its funding predecessor, the Housing and Home Finance Agency (HHFA). Finally, nine of the projects involved grants and/or loans from the Farmers Home Administration (FmHA). There was an overlap on seven projects where EPA grant funds were supplemented with FmHA loan funds.

Throughout this period of work on projects involving grants and/or loans from Federal sources, which has spanned a period of 15-17 years, a wide variety of program guidelines and constraints have been in effect, depending upon the Agency involved and the degree of assistance provided.

These guidelines, constraints, and requirements have run the gamut from minimal requirements consisting primarily of grant application forms and supporting data from some of the earlier programs (1962-1972), and the FmHA projects, to the extremely complex current EPA program requirements with their numerous specialized needs, and the duplicating technical reviews.

The experience of Tracy Engineers, Inc. in these many programs offers a definitive comparison between requirements of, and achievements under, the specific Federal programs of prior and current years.

VIEWS AND ASSESSMENTS OF FACTORS WHICH AFFECT ABILITY TO PERFORM ASSIGNMENTS

Our ability to perform assignments for our clients under EPA programs is a function, generally, of two (2) separate items. Normally, the primary factor which affects our performance is the extreme difficulty in remaining current with, and providing full compliance with, the required submissions in the Grant step process, before additional new regulations become effective, requiring still further submissions, and revisions or alterations to previously submitted data.

This problem is illustrated in more detail in the written testimony submission, items 1 through 5, and in specifics, in item II, Case Histories of Grant-Related Activities.

The second factor is a practical economic factor. The EPA grant program as it is currently administered, has grown into a very long time frame, and with the constantly changing and increasing requirements, it oft-times becomes a real economic burden on the Consultant to keep pace with, and complete the work. Normally under current guidelines, the Consultant's fees must be fixed at project inception, and the Consultant must anticipate his costs for up to 3-5 years in advance, during which period many additional requirements may be imposed. Even where the contract mechanism exists to negotiate additional fees, it is often-times difficult to negotiate satisfactory compensation for the extra work.

A corallary to this fee problem is the inability in the majority of cases to accurately forecast completion dates, which thereby leads to an inability to rely on cash flow projections. A new regulation can and has on numerous occasions, completely altered project activity dates, which were pre-requisites for receiving payment from the client.

The time-frame problem is of great significance. Attached as Exhibit 1 is a projection of the minimum time sequence from project inception to project completion, as developed by personnel of the Harrisburg Regional Office, Department of Environmental Resources, for their in-house use, in May 1978. This 7½ year minimum projection does not account for the most recent EPA requirements relating to Public Participation and Minority Business Participation. A current revision might well indicate a minimum time frame of 7.75 to 8 years.

Item 6 of the written testimony contains a comprehensive comparison of EPA grant funding as against other funding methods, when realities of time delay and annual inflation are considered.

EXTENT CONSTRUCTION GRANT PROGRAM ENCOURAGES OR DISCOURAGES INNOVATIVE TECHNOLOGY

Innovative technology means, to me, a process or technique that can reduce both capital and operational costs, and at the same time provide a better effluent quality than has been generally considered possible under current technology.

In this respect, the EPA program has really, over the years, made such a situation more difficult by reason of its insistence on opening equipment supply to virtually anyone who can claim to manufacture the equipment and to the "Buy American" concept.

This subject is dealt with in more detail in item 7 of the written testimony, which I developed two (2) years ago as an aid to a European manufacturer who was contemplating entering the American market. The net effect of EPA Restraints is to take the financial incentive from American manufacturers to develop alternative technologies, and force them to adapt or bring over, primarily the latest in European technology.

Also, unfortunately, it seems to me that a major emphasis has been placed by EPA on the premise that innovative technology means recycling or return to land application techniques, which are quite suitable for certain areas in the U. S., but totally unsuitable in others.

Still, we have a specific project in Mount Holly Springs, Pennsylvania, which utilizes current European technology, and which has been awarded an additional 10% innovative techology grant.

I really do not believe the plum of an additional 10% grant for innovative technology will have any measurable effect upon developing technologies well adapted to a majority of future projects in this country. It sounds good, but it really has little substance.

SITUATIONS WHERE PROJECTS HAVE PROCEEDED WITHOUT EPA CONSTRUCTION GRANT FUNDING

This is the type of situation where I feel I must concentrate the efforts of our firm, if we are to survive as a viable organization. In order to do so, I have, over the past 3½ years, developed detailed designs of two (2) current European Wastewater Treatment philosophies, from sources in Europe, and have been successful in implementing these design technologies in this Country. Items 8, 9, and 10 in the written testimony cover this situation in detail. Your attention is invited in particular, to item 8, "A New, Low Cost, Low Energy Approach to Advanced Wastewater Treatment."

Our firm currently has four (4) projects which have proceeded without EPA grant funds. These include two (2) with a FmHA loan and grant, one (1) with an FmHA loan only, and one (1) with no federal involvement whatsoever. This non-federal project is estimated at $5,000,000 project cost, and an illustration of the communities' activity schedule will indicate as follows:

| | |
|---|---|
| Authorization to Begin Design | August 20, 1979 |
| Design Due for Completion and Submission to State Regulatory Agency | March 1, 1980 |
| Approval Anticipated From State Regulatory Agency | June 1, 1980 |
| Advertisement and Bidding of Project | August 1, 1980 |
| Start of Construction | September 1, 1980 |
| Completion of Construction and Initiation of Operation | November 1, 1981 |

This project is scheduled for total of 2.16 years from start to completion. This may be contrasted with the 7½ to 8 years time frame for a project if EPA grant funding were involved. In actual practice, if this community were to wait for EPA grant funds, it would be 10-12 years before the project could be completed, since they do not currently possess sufficient priority points to quality for grant funding. This project simply cannot economically afford to become involved in EPA grant funding.

COMMENTS AND RECOMMENDATIONS RELATING TO EPA CONSTRUCTION GRANT PROGRAM

Due to the limited time available for my oral testimony, I would refer you to item 12 in the written testimony, for my specific comments and recommendations and a fuller discussion of each of them. This morning, I will only summarize them, and will hope you have an opportunity to review the reasoning for each in the near future.

1. Redefine the EPA grant function as being limited to a financial assistance agency, similar to the Farmers Home Administration Water and Sewage Assistance Program.
2. Reduce the grant participation level to 35-40% maximum of eligible costs, and 50% of total project costs.
3. Introduce the "need" concept to funding the grants. Many communities do not require 75% funding, or even 50%, 40%, or 30% grant funding to provide service at reasonable annual cost levels per dwelling unit. This would avoid the concept that a community is entitled to a specific grant percentage.
4. Eliminate any restraints on the size facility a local community feels it requires, so long as conventional funding for non-grant funds is obtainable on the open financial market. Let the local community define its own growth requirements.
5. Restore sewage collection system eligibility to grant consideration, regardless if it involves service for future anticipated growth.

6. Eliminate technical reviews of project designs as an EPA function, and rely on the State Regulating Agency review on which the discharge permit is issued, as being satisfactory to qualify a community for the financial assistance.

7. Introduce, in lieu of the original higher grant levels (see #2 above), the concept of an annual payment for 10 years, 20 years or 25 years, based upon the local share of eligible project costs at some percentage of that cost, say 2-2½%. This annual payment would be unrestricted as to use, either for debt service reduction, or for O & M reduction, or a combination.

8. So as to avoid the current overlap, limit grant participation by EPA to communities with population participation in a project of greater than 20,000, and designate FmHA as the grant agency for population project participation of less than 20,000.

9. The annual payment concept of #7 above, should be administered by EPA as a separate program to all communities, whether they have EPA grant funding, FmHA grant funding, or rely totally on local funds with no Federal participation.

III. Reinstate the concept of the Design Professional being responsible for specifying process and equipment, and permit the use of closed specifications, as a means of encouraging new R & D, and innovative technology.

CONCLUSION

I appreciate very much your time and your attention. This subject of the Construction Grants Program is so complicated that 15 minutes cannot even begin to define the major points in total. Nevertheless, with this oral testimony, and the submitted written testimony, I hope my participation will be of some benefit to the Committee.

I would be pleased to provide any other data you would deem desirable, and stand ready to meet with the Committee again, or any member or members individually in order to probe the problem in more depth.

Respectfully Submitted,

Tracy W. Greenlund, P. E.

Developed in Harrisburg Regional Office of Pennsylvania Department of Environmental Resources

## Minimum Grants Projection

### EPA Projects

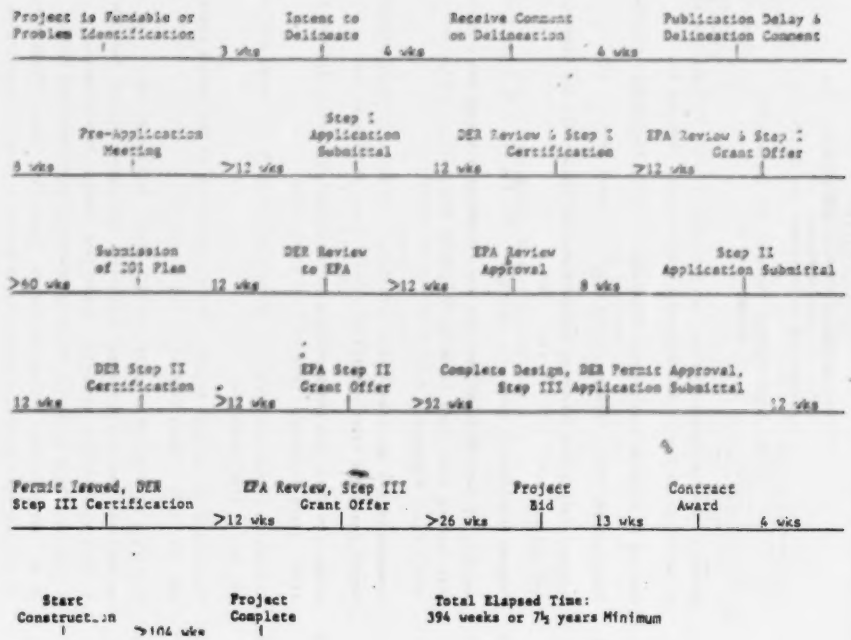


EXHIBIT 1

TRACY ENGINEERS, INC.

FILE OF DATA
TO ACCOMPANY WRITTEN SUBMISSION
FOR
SUBCOMMITTEE ON OVERSIGHT AND REVIEW
ON
EPA GRANT PROGRAM PROBLEMS AND EXPERIENCES
OCTOBER 20, 1979

1. Series Of Correspondence Dating From September 6, 1974 Through June 21, 1977, On Revisions In Grant Administration Requirements. DER And EPA.
2. Listing Of Program Requirements Memoranda, Construction Grants Program. EPA.
3. Construction Grants Program Issues Memos - March 1979 - EPA.
4. Regional Policy For Increased Use Of Minority Consultants And Construction Contractors, April 1979 - EPA.
5. Program Requirements Memoranda, MCD-02.8 - PRM #'s 79-7, 79-8 and 79-9 - EPA.
6. Analysis Of Federal Grant Programs For Wastewater Projects And Comparison Of Real Funding Situations Assuming 12% Annual Construction Inflation - January 1979 - Tracy Engineers, Inc.
7. Comments On The American Market With Respect To Sewage Process Designs And Sewage Equipment Sales - April 15, 1977 - Tracy Engineers, Inc.
8. A New, Low Cost, Low Energy Approach To Advanced Wastewater Treatment - March 1978 - Tracy Engineers, Inc.
9. Discussion Of Low-Load Aeration Process According To The Dutch Practice - May 25, 1977 - Tracy Engineers, Inc.
10. Discussion Of Low-Load Aeration Process According To The German Practice - May 25, 1977 - Tracy Engineers, Inc.
11. Histories Of Grant-Related Activities - Tracy Engineers, Inc.
    a. Hatfield Township Municipal Authority, Montgomery County, Pennsylvania.
    b. Carlisle Suburban Authority, Cumberland County, Pennsylvania.
    c. The Municipal Authority of Zerbe Township, Northumberland County, Pennsylvania.
    d. Mt. Holly Springs Borough Authority, Cumberland County, Pennsylvania.
    e. Mahanoy City Municipal Authority, Schuylkill County, Pennsylvania (Limited To Cost Comparison Of FmHA And EPA Funding).
12. Recommendations Concerning EPA Construction Grant Program.

Retained in Subcommittee File.

TRACY ENGINEERS, INC.
CONSULTING ENGINEERS
BOX 702, 702 LISBURN ROAD CAMP HILL, PA. 17011
TELEPHONE 761-2888
AREA CODE 717

TRACY W. GREENLUND, P.E.
FRANK E. GROTTOLA
JERRY E. BECKER
NICHOLAS J. MARCUCCI, P.E.

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WRITTEN TESTIMONY

OF

TRACY W. GREENLUND

FOR

SUBCOMMITTEE ON OVERSIGHT AND REVIEW

OF

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

HOUSE OF REPRESENTATIVES

CONGRESS OF THE UNITED STATES

OCTOBER 30, 1979

RE:

EPA CONSTRUCTION GRANT PROGRAM

EXPERIENCES AND PROBLEMS

INTRODUCTION

This written testimony is supplementary to the oral testimony presented to the Subcommittee on October 30, 1979. The length of time available for the oral testimony could not permit more than an overview of what I consider to be the major problem points, let alone suggested remedies to the problems.

The data contained in the oral testimony by way of introduction and in the summary of involvement in grant projects need not be repeated, but I would emphasize the variety and long scope span of the many Federal Grant Programs with which our firm has been involved. This extended experience over a 17 year period offers an excellent background with which to compare activities which have occured versus the complications which surround the current EPA Construction Grant Program.

There would appear to a number of specific points which should be addressed in some depth, and I would list these items as follows:

1. Grant Programs Prior to PL 92-500.
2. Assumed Specific Goal of Original PL 92-500 Legislation.
3. Guidelines and Regulations Formulated During Period, 1974 Through 1979.
4. Current (October 1979) Status of Grant Program.
5. Performance Under Current Program Guidelines and Requirements
6. Effect of Program on New Technology, Innovative Technology, and Restraints on Flexibility By Professional Consultant.
7. Funding of Wastewater Treatment Projects Without EPA Grant Participation.
8. Alternative Possibilities For Current Grant Program.
9. Specific Recommendations Concerning EPA Construction Grants Program.

Before considering each of the nine (9) specific points, it is important to point out that the EPA Construction Grants Program as it is now constituted is by no means a totally negative situation. In many respects, most of the general requirements imposed by EPA in their interpretation of the intent of the Congress, are excellent as general guidelines and should be included in any wastewater treatment plant project development package.

The problems lie not so much in the actual requirements, but in the further detailed implementation regulations pertaining to the general requirements, and their spread into areas which may or may not represent current Federal policy, but which, by their adoption by EPA, have the force of law until and unless challenged in the Courts, and a judgement rendered on their suitability.

It is also important to point out that no testimony on this subject can be a totally impartial view. I have lived and coped with increasing frustration over the past

five (5) years with the EPA Grant Program, and in this written testimony, while I will try to be as objective as possible, necessarily certain philosophies on EPA in particular, and government in general will creep forth. I would solicit the Subcommittee's indulgence if a philosophical view should be at odds with the majority, and beg that such differences, if any, be limited in consideration to the context of the EPA Construction Grant Program.

Attached to, and made a part of, this written testimony is a File of Data which is deemed relevant to the subject. Perhaps some of the data is already well known to the Subcommittee members, but perhaps it may be better understood as to its effect on the application of the program as specific examples are cited concerning several of the items.

GRANT PROGRAMS PRIOR TO PL 92-500

Commencing in the early "Sixties" and surviving into the end of that decade, and even beyond, there were a number of grant assistance programs offered by the Federal Government to encourage water pollution control activities, and other public works activities.

Among the earliest were programs of the Housing and Home Finance Agency (HHFA) directed primarily at Advance Planning fund loans and grants, and the programs of the Department of Housing and Urban Development (HUD). Among these were programs which were entitled "Accelerated Public Works", and which, in the middle 1960's were aimed at getting a variety of projects in the construction stage as rapidly as possible as aid to bolstering the economy.

A number of the earlier projects of Tracy Egnineers, Inc. were assisted by these programs. Generally, the maximum grant was 50%, and more frequently was in the 30% range. Financing of the local portion was accomplished with conventional financing on the open bond market, and the projects proceeded rather rapidly, once a grant committment was received from the appropriate Federal Agency.

Commencing in the middle 1960's, grant and/or loan assistance became available through the Farmers Home Administration (FmHA) Rural Water and Sewer Program. These committments were similar to the others, excepting that in addition to grant funding, the loan for local funds was also provided the community for its local non-grant share, at a low fixed interest rate.

In virtually all of these programs, the filing of the application and the submission of additional requested supporting data was the major extent of the Federal Agency involvement. A grant committment was offered on the basis of these applications, and the regulatory review of a project, including the technical review for the issuance of the Sewerage Permit or Water Quality Management Permit to construct the facility was by the State Regulatory Agency empowered to do so.

In this context, it must be noted that virtually all the experiences of our firm have dealt with the wastewater treatment regulations of the Commonwealth of Pennsylvania, and that there may have been, and may still be, significant differences in requirements among the several States.

During this 1960's period eleven (11) of our Wastewater Treatment Projects were constructed with grant funds from among these various Federal Programs. These were without exception, eleven (11) projects that would not have proceeded to completion without the Federal assistance. The Federal grants were the catalyst to initiate these projects, because the then Water Quality Division of the Pennsylvania Department of Health (now DER) had not the enforcement powers to compel new facilities that they now possess.

This fact is emphasized because there was a sizeable increase in waste treatment facility construction (eleven (11) from our small firm alone) during this period, and these programs were initiated and completed fully in an average 2½ to 3 year period with only minimal contact and overview from Federal agencies.

There were, during the same period six (6) wastewater treatment projects initiated and completed by our firm on which there was no Federal funding of any kind. Two (2) were State Park projects of the Commonwealth, and one (1) was a Federal Prison Project at the Allenwood, Pennsylvania Minimum Security Prison. The other three (3) were developed out of local need and proceeded because of recognition by local authorities of the need. One (1) of these encompassed a total utility program, including water supply and treatment.

The point is, that the decade before PL 92-500, which was conceived to accelerate water pollution control activities, was not a period of inactivity, but was in fact an era of accelerated activity of significant proportions.

Commencing in the period 1965-1966, the forerunners of EPA, the Federal Water Pollution Control Administration (FWPCA) and the Federal Water Quality Administration (FWQA) undertook the major grant assistance for water pollution control under PL 660. The programs of these two (2) predecessor agencies were not dissimilar to those of the other Agencies such as HHFA and HUD, excepting that these agencies began to exercise more technical review control over a wastewater treatment project. The permit issuance and regulatory function of setting stream standards and effluent criteria rested still with the State Regulatory Agency, but plans and specifications had to be approved by these Federal agencies before grants were committed.

This was a period of active issuance of pollution abatement, and stream upgrading criteria in Pennsylvania, at least, and the Federal grant level was a fixed 30% of eligible construction and project costs.

A specific example of what was accomplished under the FWPCA - FWQA era is deemed important at this point. In item 12 of the attached "History of Grant-Related Activities," there is a case history of the Hatfield Township Municipal Authority. This is a unique situation and one which offers a significant comparison with present day requirements.

The Hatfield Twonship Municipal Authority constructed a totally new sewage collection system, and a 1,200,000 GPD Secondary Sewage Treatment Plant in 1965-1966, with 30% Federal grant assistance from FWPCA. In July 1967, the Division of Water Quality of the State Department of Health issued an order to all the communities on the upper Neshaminy Creek watershed, setting exceptionally high effluent quality standards, among them being an effluent $BOD_5$ of 4 mg/l, and an effluent phosphorus of 0.2 mg/l as $PO_4$ (0.07 mg/l expressed as P). This Order required a preliminary report to be filed no later than July 1, 1968.

The technology in 1967-1968 on phosphorus control was virtually non-existent. Despite this factor , the Authority, through our firm, commissioned the study in September 1967 and provided the preliminary study in the form of a Comprehensive Report, on June 25, 1968. The Authority authorized design commencement in July 1968, and the design was completed and filed on February 28, 1969, together with an application for a Federal grant from FWPCA under PL 660. A priority point certification was awarded on June 20, 1969, and the Delaware River Basin Commission approved the project on October 28, 1969. The State Department of Forests and Waters issued a Stream Encroachment Permit on November 1, 1969, and the State Sanitary Water Board finally issued a construction permit in July 1970. The project was delayed for some 6 months to July 1970 by the State Regulatory Agency attempting to extract certain funds from the Authority to support regional analyses for the communities that did not comply with the order.

The project was initiated in November 1970, and was placed in operation in July 1972. There were some delays in this project at the State level which had nothing to do with the Federal grant assistance request, or other Federal approvals, and despite this 6-month delay, the project was completed almost five (5) years to the day from the date of the July 1967 Order, and almost four (4) years to the day from the filing of the Comprehensive Report. It could have been completed in 3½ years from the date of the Comprehensive Report, save for problems at the State level.

This project, in addition to providing the very high advanced degree of waste treatment, provided also an expanded capacity of 3,600,000 GPD, or the flow from an equivalent population of 36,000 inhabitants. The technology was totally new, yet this major achievement in waste treatment technology was developed, designed and completed in record time, under the then existing Federal grant standards. As will be detailed later herein, this four (4) year project would require, under the current regulations of EPA, a minimum of 7½ to 8 years to complete, and in fact, an upgrading project at the same plant location has languished under the current EPA regulations since September 1973 without even getting to the stage of a grant approval to commence Step I engineering.

This Hatfield Township Advanced Waste Treatment Facility was of such a significantly advanced technology, that the Authority was awarded a Research and Demonstration Grant from the EPA, Project No. FRQ11060. The demonstration period covered 1973 and 1974, and the final report was published in September 1975, as EPA-600/2-75-030, "A Case History of the Hatfield Township, Pennsylvania, Advanced Waste Treatment Facility."

The significance of this project accomplishment should be retained for later comparison, because it was completed with a 30% FWPCA grant, within manageable Federal requirements, in a period where the review functions of the Federal Regulatory Agency were accomplished by professionals with actual prior experience in the field, and without the extensive requirements currently thought to be necessary to guarantee the cost-effectiveness of the project. It may be interesting to note that the citizens of Hatfield Township pay a flat sewer rental of $10/month, or $120/ year, which is well below average rates prevailing today in most parts of Pennsylvania; and that this rental has remained unchanged in the last four (4) years, and appears to be stable for some years to come, despite the inflationary impact on O & M costs.

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ASSUMED SPECIFIC GOAL OF ORIGINAL PL 92-500 LEGISLATION

The original goal of the PL 92-500 Legislation was to provide a significantly increased grant assistance in order to stimulate the construction of the inventory of needed wastewater treatment facilities around the Country, to control further pollution of the Country's waters, and to clean-up and reduce existing pollution levels as much as possible.

At the time the PL 92-500 legislation was passed there was much rhetoric about the urgent need to accelerate water pollution control, and vast sums of money were to be appropriated to accomplish this task. In addition, certain statutory requirements were imposed upon an EPA grant project, i. e., that it be cost-effective; that an environmental assessment of a satisfactory nature be provided; that there be public-participation in the formulation of the project; and that inflow/infiltration be defined and controlled.

The entire program of PL 92-500, as it was defined in the original legislation, really cannot be faulted. There was a need for accelerating waste treatment facility construction. A project should always be cost-effective, whether Federal funds are involved, or whether the funding is on a local basis only. The effect of the project on the environment must always be addressed, so that more problems are not created than are solved. Public-participation must be a part of a project, because the public ultimately pays the cost of the service in the form of user charges. And finally, infiltration/inflow must be corrected insofar as it is cost-effective to do so, because in this period of energy shortfall, pumping and treating essentially clear water is expensive, and is at the expense of capacity for true waste-water. Also I/I can be so extreme at times that it can cause a normally operating facility to become very sub-par in performance during periods of extended wet-weather conditions.

The basic goal, then, was and still is very appropriate. The statutory requirements were, and are, basic fundamental factors which should always be a part of a project development. If the original goal and a practical and positive approach to implementing the statutory requirements were returned to, a very workable Grant assistance program would tend to produce the originally intended results.

GUIDELINES AND REGULATIONS FORMULATED DURING PERIOD 1974 THROUGH 1979

From the basic goal and the statutory requirements quoted in the preceding section, the PL 92-500 program has grown massive by successions of implementation guidelines and directives.

In the File of Data appended to this written testimony, the first five (5) items relate to this initial promulgation of regulations. In Item 1, a series of Information Memorandums which were originally issued in September 1974 are reproduced. These memorandums 1 through 5A, describe the phasing in requirements for projects in various stages of completion; alternative waste management techniques; environmental assessment considerations; public participation requirements; and user charge and industrial cost recovery requirements. A sixth information memorandum on use of incinerators for sludge disposal, dated September 1975 also included.

In Item 1, there is also included a Program Requirements Memorandum (PRM) No. 77-8, dated June 21, 1977, relating to funding limitations for sewage collection systems.

In Item 2, of the List of Data, there is contained a complete listing of Program Requirements Memoranda (PRM) from the first issued in June 1973, to the latest issued in May 1979. A number of these are not directed specifically to local implementation of facilities plans, but are rather of concern to the State Regulatory Agencies. Nonetheless, a significant number of them impose requirement upon new requirement, sometimes in language form that is difficult to interpret.

Item 3, of the List of Data, contains a series of Construction Grants Program Issues Memos, which were issued in March 1979, and which apparently have not as yet been assigned PRM numbers. These are, infact, inter-office EPA memos within the EPA Region 3 office. They are included as supporting data to indicate that EPA has a problem with the "Grantee" not being as responsible as EPA thinks it should be; that there is a "pre-construction lag record" which is troublesome; that there is a problem with Architect-Engineer agreements; and that a number of new program developments have concerns.

Item 3 also includes PRM No. 79-7, concerning funding of projects requireing treatment more stringent than secondary. It also includes a fact sheet on full-scale public participation requirements for Grant projects.

At this point, it is interesting to digress and review briefly the subject of public participation. The fact sheet in Item 3 represents the two (2) public participation requirements effective February 16, 1979. One fact sheet is on a Basic Public Participation Program, and the other on a Full Scale Public Participation Requirements. These two (2) fact sheets should be contrasted with Information Memorandum No. 4, which was originally disseminated in September 1974 on Public Participation Requirements, and is included in Item 1.

It is unclear how these latest requirements improve upon the original requirements. They can only cost more, and their purpose is not completely understood. It may be that experiences of this Consultant at several Public Participation Hearings, duly and properly advertised, which have produced no members of the public, even though the meeting were conducted in depth per the 1974 requirements have caused concern to EPA. Other Public Hearings have had minimal public attendance. Perhaps these conditions are not palatable to EPA, hence the latest guidelines. EPA is apparently unaware of a growing trend in our area of Pennsylvania towards mass coverage of particularly sewerage projects by the news media, even to television coverage, in great depth. Also, in Pennsylvania, the "Sunshine Law" relating to open public meetings prevails. Some 25 years of experience in this field, in which I have attended public municipal meetings which average 60 per year, or a total since 1955 of at least 1,500 public meetings, has convinced me that public participation cannot be forced, and will generally not surface if the public is adequately aware of a project's progress through news media.

This public participation effort of making a more comprehensive requirement out of a good basic, workable requirement, is symtomatic of the fundamental problems of the Grants program as it exists today.

Item 4 of the attached List of Data includes the information circulated in April 1979 on Minority Business Enterprise Participation. We have had one (1) project already where the MBE requirements have prevailed, and the project, which was ready for construction bidding in July, is yet unbid due to the delays in securing needed State and EPA approvals of MBE program.

Concerning MBE, it may well be the intended policy of the Congress, as EPA has written the regulations. That, however, does not make the program either realistic, or manageable, and its addition as the latest in the long list of EPA mandates, can only further dilute the ability of the Construction Grants Program to achieve reasonable pollution control within a reasonable time frame.

Item 5 of the attached List of Data contains PRM Nos. 79-7, 79-8 and 79-9. These are provided merely to aquaint the members of the Subcommittee of the type and scope of regulations which appear several times a year.

CURRENT STATUS OF THE GRANT PROGRAM

The current status of the Grant program, in Pennsylvania, can perhaps best be described by listing the steps which must be followed to carry a project to conclusion.

The very first step is to have a project with sufficient State-awarded priority points to qualify for Grant funding, and this priority-points system is directly linked to the available grant funds to the State in any fiscal year. At the present time, the State is funding projects with 70 priority points. There are literally hundreds of projects in the State with less than 70 priority points, and none of these projects can currently qualify for an EPA grant program.

This situation poses a peculiar, and in my judgement, an undesirable situation. As indicated previously, the period 1967-1972 was a very active period of State issuance of Orders to upgrade effluent criteria, and State activity on classifying the Streams of the Commonwealth. There are a large number of outstanding Orders, dating from 1967, which have had no activity undertaken towards constructing facilities to either abate a pollution problem, or reduce existing pollution loads.

The reason for this is simply that grant funds under PL 92-500 are at 75% of eligible costs looked upon as an inherent right of every community, and the Pennsylvania DER has chosen to withhold enforcement action to comply with these long out-standing orders for any community which does not possess sufficient priority points to initiate a project program.

In actual practice, the mere presence of PL 92-500, at least here in Pennsylvania, has effectively stopped a large number of projects from being undertaken, regardless of the feasibility of a project.

This is one of the main failings of PL 92-500. It has no financial "need" basis. It is a grant to be uniformly applied to all communities, hence the feeling that it is a guaranteed "right," and that lack of a sufficient number of priority points to

initiate a project is a total excuse for taking no action. In the meantime, large numbers of stream segments which should have been improved, lie still polluted, and in many cases, the pollution has grown, because of increased discharges from existing non-treated, or under-treated systems.

It is my judgement that this reason alone is sufficient to cause a major revision in PL 92-500.

Once a project has sufficient priority points, the Community must petition the Regional DER office for a delineation of the area to be studied under a Step 1 grant process. DER then invites from various agencies, comment on this delineation request, and eventually issues a delineation definition to the community, along with comments from other interested agencies. There is then a pre-application meeting, usually in DER Regional Offices.

Once the pre-application meeting is completed, the Community must file on "Intent To Apply For Federal Funds" under OMB Circular A-95, with the State Clearinghouse, and Regional or Metropolitan Clearinghouses. This step alone can require 30-60 days. Two (2) years ago, on a specific project, this step consumed nine (9) months.

After the Clearinghouse notifies the Community it is cleared to file the Step 1 grant application, the Community then submitts its application to DER for approval and certification to EPA.

The time frame, on a realistic basis, based upon actual experiences with this EPA program and its guidelines, will consume a minum of 39 weeks, and more probably 45 weeks to go from the point of notification that priority points are sufficient to fund the project, to the actual filing of the Step 1 grant application.

During this entire period, which is 0.865 years, the only actions are a compliance with regulatory administrative rules. Not one single concrete action is taken in this period on the project itself, no studies, no forecasts, no consideration of alternatives, in short, no accomplishment other than to comply with bureaucratic steps.

Contrast this situation with the previously discussed Hatfield Township situation in 1967-1968 when our firm, at the direction of the Authority, commenced the development of a Comprehensive Report on the subject of high advanced waste treatment and the subject of phosphorus technology on September 12, 1967, and delivered a completed report to the State Regulatory Agency on June 25, 1968. This Comprehensive Report, on a then virtually unknown technology, consumed slightly less than 41 weeks. The actual report was finished in 36 weeks, and was reviewed by the Authority prior to its submittal to DER.

During this 36 week period, we defined the problem; thoroughly researched existing phosphorus technology; developed alternative design bases for different process considerations; developed cost-effective analyses of each process design configuration; and developed feasibility studies on financing the project

Thus, because we were unhampered by the scope of current EPA grant regulations, we were able to do in 41 weeks, the substantive equivalent of a Step 1 Study, albeit without such specific considerations as a detailed environmental assessment, and without lengthly public hearings.

As far as the environmental assessment, we did not commit the Community to a damaging environmental situation, and the public was well informed through the press and radio of the Authority's activities and of course, had the opportunity at the Authority's public meetings to participate in the progress of the project.

Yet, under current EPA regulations, if we were to be confronted with the 1967-1968 project, we would not have advanced in the 41 week period even to the point of submitting the application to DER-EPA to begin the study.

This, I think, is a very concrete example of the problems with the current PL92-500 program.

To return to the time-frame analysis, once the Step 1 submittal is made to DER-EPA it is reviewed by DER and ultimately certified to EPA. It is then reviewed by EPA and a Step 1 grant offer is finally made. The time projection for this activity from Step 1 application submittal to the Step 1 grant offer is a minimum of 24 weeks, and usually requires at least 36 weeks.

Thus, to move a project from initial notification of sufficient priority points to the actual Step 1 grant offer consumes an estimated 81 weeks, or 1.56 years. Again, to this point in the regulatory process, not one definitive activity has been taken to commence actual work on the project. In fact, no activity is permitted, because any activity undertaken before the Step 1 grant offer is accepted by the Community, is grant in-eligible. The current EPA program thereby insures that from the point of intiating a project that the cost has increased by 15-18% simply by reason of annual construction inflation at an annual rate 10-12%.

In other words, to comply with and satisfy the bureaucratic guideline process, EPA has already committed at least 15-18% more to a project in the way of funds, simply by reason of inflation.

Again, contrast this with the 1967-1968 Hatfield Township Project. In 81 weeks, that project had progressed to apoint where the actual design had been completed and the project had been submitted to the State Regulatory Agency for permit approval, and to FWPCA for a grant committment. Under current regulation, that project would not even have commenced the initial study work.

Once a Step 1 grant offer has been received and accepted by the Community, the DER estimates a minimum of 60 weeks to complete and submit the 201 Study, another 12 weeks for DER review and submittal to EPA, and a minimum additional 12 weeks for EPA review and approval of the 201 Study and the Step 1 activities. To this point, then, a realistic assessment of time expended is 165 weeks. In 165 weeks, or 3.17 years, a project, from first notification of priority points, would have progressed to a point where an application could be submitted to begin the Step II detailed design work. To this point the equivalent of a prior year's Comprehensive Report would have been completed, albeit in less detailed format, but with all the salient technical features, and most of the salient social features adequately addressed.

Using the 1967-1968 Hatfield Township Project again as a comparison, in 165 weeks, the project was actually some two (2) weeks into actual construction. Under current EPA regulations, the project would not even have entered the design stage.

Once EPA approval of the Step I activities is given, a Step II grant application is submitted to DER, is reviewed by DER and transmitted to EPA, and is reviewed by EPA. The end result eventually is an EPA Step II grant offer for detailed design.

DER estimates these actions to require a minimum of 32 weeks and more realistically, as in the case with Step I processing, the time frame should be estimated at about 38 weeks. Thus to the point where a project can actually begin the detailed design work, a total of 203 weeks, or 3.9 years would have elapsed.

Using again the 1967-1968 Hatfield Township Project, the construction had been completed and the project was already in full operation in 203 weeks. Under current regulations, the project would have only been ready for the detailed design work to begin.

Once a Step II grant offer has been received from EPA, DER estimates a minimum of 52 weeks to complete the design work, to submit the project to DER for permit approval, and the transmittal of the Step III construction grant application to DER for review. An additional minimum 24 weeks is estimated by DER for their review and certification of the Step III application to EPA, and the EPA review and eventual Step III construction grant offer.

Thus, to move through the project design phase to the point where a project is ready for bidding, a total of 76 additional weeks minimum is anticipated. The total elapsed time from notification of sufficient priority points, to the point where construction bids can be advertised, is 279 weeks, or 5.37 years.

For reference purposes, the 1967-1968 Hatfield Township Project had already been in full operation in 279 weeks, for 1½ years.

Once a Step III grant offer is approved for construction, DER estimates the bidding, the contract award, and the actual construction period for an average project to consume an additional 147 weeks. Thus the total current EPA program is estimated to consume 426 weeks from the initial point to completion of construction. This is equivalent to 8.19 years.

It should be noted and emphasized that this estimation <u>does not</u> include any additional time lags that will be occasioned by compliance with the most recent EPA promulgations on intensified public participation, and with minority business participation requirements.

With respect to this latter item, the minority business requirements, it had been noted in an earlier section of this written testimony that one of our current projects in the EPA mill has been caught-up in this new regulation. The most recent (10/24/79) status of this project is that the MBE plan is still before the State reviewer and has not yet been sent to EPA for their approval. Already this requirement has delayed the project bidding for some 13 weeks. If this is to be a normal experience on future projects, then the total time frame for a project would expand to 439 weeks, or 8.44 years.

For final reference, the 1967-1968 Hatfield Township Project had been in full operation for almost 4½ years in the same time frame.

This discussion of the Current Status of the Grant Program is lengthly, but it was deemed necessary to devote the time to set forth the process in detail, and to provide the comparison with a prior actual project of significant technical requirement, so that certain points would be readily apparent.

In the accompanying List of Data, in Item 3, there is contained a series of EPA Region 3 draft memos expressing certain concerns. Among these are "lag" symptoms in a project (i. e. long delays in progress), and the real concern over growing increases in project costs.

It is submitted that the preceeding analysis very clearly indicates why current projects develop "lag" symptoms.

As to the growing concern over project cost increases, a real comparison can be developed from the time frame of the 1967-1968 Hatfield Township Project, and the time frame that project would be estimated to consume under today's EPA requirements.

In any project, costs are fixed for purposes of defining actual future debt service annual requirements, after construction bids have been received and permanent financing has been completed. This can be defined within a few days, of the date of actual Contract Award, and issuance of project Notice-to-Proceed to the successful bidders.

Under the current EPA format, this time frame is estimated to require a minimum of 318 weeks, or 6.12 years, from the initiation of the project. The 1967-1968 Hatfield Township Project actually reached this same point in 164 weeks, or 3.15 years. Therefore, if the 1967-1968 project were required to develop under current regulations, almost exactly 3 years additional would have been required to fix annual debt service costs.

Considering construction inflation to currently average 12% per year, this would mean that EPA would have to expend an average of 36% more for construction costs, than if the 1967-1968 FWPCA regulations were still in force. It is submitted that this is rather clear evidence of a major reason why EPA has a real concern with growing project costs.

This 36% additional is based on inflation only. Consider however, that the project is also subjected to a multiplicity of additional bureaucratic regulations, requiring at a minimum, substantial costs for Contractor's paperwork to comply with Federal regulations, and, perhaps, with the new MBE requirements, a measurable additional cost just to protect the Contractor against reprisals for failure to satisfy some MBE administrator's findings that adequate MBE effort had not been expended.

What is a reasonable expectation of what the current regulations cost extra over the late 1960's mode of FWPCA operation? Is it 35% more, 40% more, or could it even be greater than 50% more?

Whatever it is, and it would vary with each project, and, of course, can't be actually defined, it is a severe problem. The basic question to be reviewed by the Sub-Committee is the balance of extra cost now required as opposed to the social benefits realized or hoped to be realized for the extra cost expended.

The unfortunate fact of the current status fo the grant program is that pollution control activities have not accelerated with the new requirements to the extent envisioned, and probably actually have declined, and have cost a great deal more money, not only to the Federal government in the form of grant payments, but to the local citizens who must pay for the non-grant share of the project.

As a Consultant, viewing this total problem from the ground level so to speak, I am appalled at the waste in time, in money, and in actual pollution control accomplishment occasioned by the current requirements. I view the expenditures involved, including paying the cost of the EPA burreaucracy to administer the program, as virtually a criminal waste of our Country's resources.

EFFECT OF PROGRAM ON NEW TECHNOLOGY, INNOVATIVE TECHNOLOGY, AND RESTRAINTS ON FLEXIBILITY BY THE PROFESSIONAL CONSULTANT.

Turning to other considerations imposed by the current program, or brought about by the requirements of the current program, one very salient factor is the consideration of the technology of wastewater treatment.

This consideration must first define the differences between innovative technology and new technology. Innovative technology may be broadly defined as a new approach to, or a new application of, general forms of existing technology. In this context, as it relates to wastewater treatment, EPA seems to view innovative technology as primarily the utilization of land application as the ultimate form of wastewater treatment. At a recently concluded EPA Innovative/Alternative Technology Seminar, held in Philadelphia, Pennsylvania on October 22 and 23, 1979, personnel from our firm report that EPA has set a goal of achieving land application of wastes for 33% of the total wastewater volume in the Country. Currently, EPA indicates the 3% of the Country's waste is disposed of by land application. At the Seminar, it was indicated that EPA would be happy if the 33% 1983 goal, actually increased the current situation from 3% to 5% by 1983.

This Seminar, and this most recent EPA dictum, are a fundamental demonstration of what I view as a major deficiency in the EPA PL 92-500 administration. We have always had the requirement under PL 92-500 to consider land application of wastewater, and on every project within the last eight (8) years, we have dutifully gone through the calculations, a review of the soils and geology, a search for suitable sites, and the necessary cost-effective evaluations, and, the review of Pennsylvania laws and requirements for land disposal consideration, and have, without exception, reached the conclusion that here in Pennsylvania, land application of wastes is not a viable alternative.

Yet, we now have a national goal of 33% land application by 1983. There are undoubtedly areas of the Country where this goal can be accomplished, and there are

even areas where 100% land application may be the most cost-effective, and the most practical solution to the Problem. But this goal is symbolic of the disease affecting PL 92-500. A laudable goal for portions of the country, where such a goal is technically, feasibly, and politically a suitable solution has arbitrarily been expanded to a national goal for all areas.

Setitng this national goal does not mean that there will be more land application projects in areas where it is not practical to do so. It simply means that the EPA grant process, already calculated at an average 8.44 year time frame, will be lengthened even further by the need to demonstrate in detail in those areas where land consideration is impractical, that it is, infact, impractical. It will further increase engineering costs, but then all the extra and extraneous regulations that come along have contributed to significant increases in engineering costs on EPA projects.

EPA at the Seminar, indicated that all land application projects will automatically qualify for an extra 10% grant on the basis of application of innovative technology. Also, the cost of the land for land application will be grant eligible, whereas under current regulations, land costs for wastewater treatment are ineligible.

Thus, potentially significant extra EPA grant funds are apparently committed to this goal of achieving a 33% land application of wastewaters by 1983. I would argue most vocally that these funds could be far better utilized to construct as rapidly as possible, waste treatment facilities to control existing pollution.

There is a factor of importance which argues loudly that this goal of land application was not conceived by professionals who have any experience in actually designing and implementing waste water treatment. This factor resolves around stream flow, and maintaining minimum stream levels for a multitude of purposes, including water supply, irrigation, stock-watering, agricultural, and recreational uses. And, certainly, as an important element, the maintenance of fish populations in existing streams.

In Pennsylvania, the vast number of existing and future potential waste treatment facilities lie not along the major rivers such as the Allegheney, Monongahela, Ohio, Susquehanna, Juniata, Schuylkill or Delaware Rivers, but along lesser streams and tributaries where minimum flow conditions in dry-weather periods are often critical. If it were practical to assign in Pennsylvania 33% of the current waste discharges to land application, then a potentially environmentally damaging situation could well occur throughout the State, due to loss of stream flows.

The Hatfield Township case is an example. The Upper Neshaminy Creek at the Hatfield Township plant site is perhaps 30 feet wide and 1½ to 2 feet deep, and in dry-weather periods, shrinks to perhaps 10-15 feet wide and less than a foot deep. If this stream flow were reduced by upstream treatment facilities now dischargin effluent, which maintains minimum stream flow, by land application of these stream charging or augmentation flows, then the stream might well not be able to assimilate the pollutional load from the existing, very high degree, Hatfield Township Advanced Waste Treatment Facility. It might be necessary for the State to require an even higher level of treatment, which would be extremely costly, in order to protect the fish life in the stream, and in order to maintain sufficient minimum flow volumes for existing water supply intakes located some nine miles downstream.

This chain of events was obviously not a consideration in setting this goal of 33% land application by 1983, else the implementing requirements contained in EPA Construction Grants Program Operations Memorandum POM No. 79-3, with a date of June 21, 1979, would never have been put in print.

Another view on innovative technology concerns the use of a European Low-Load Aeration process design on one of our projects, Mount Holly Springs, Pennsylvania. We proposed to the Community, and they approved, the use of this technology for their project. In itemll, there is a detailed case history of this project, which is another classic example of the EPA program. Nevertheless, we have utilized this design, and we found that under the current guidelines, it qualifies as innovative technology, and the Community will receive an extra 10% grant. The Community would have utilized this process regardless, because it is the least costly on a capital basis, and the lowest energy cost form of treatment available at the time of the project design, so the extra 10% grant did not encourage the "innovative technology", but merely rewarded it.

Earlier in this section it was indicated that the differences between innovative technology and new technology be defined. New technology in my view is the development of or adaptation of a new method or approach to waste water treatment. In this context, it represents new design approaches, and new considerations of the biology and chemistry of wastewater treatment. Very little in waste water treatment if anything, is currently totally new. Yet, there are new developments that have sprung from existing methods, where a new process application produces new and better results. This is my definition of new technology.

At this point, I must offer information which I consider to be very relevant as new technology. During the past five (5) years, I have been very active in pursuing new design approaches and processes in an effort to develop lower capital cost, lower energy operating cost methods of waste water treatment. This effort has been concentrated in Europe, particularly in West Germany and Holland, although initial efforts in 1974 and 1975 were concentrated in Denmark. This effort was an outgrowth of my continuing participation since 1971 in the International Association of Water Pollution Research (IAWPR) which has its headquarters in South Africa.

This effort was not launched out of any altruistic approach, but because I felt I needed to develop new approaches to waste water treatment in orderto develop for myself and my firm a competitive edge that would enable us to survive as a viable Consulting Eguineering firm. As will be discussed later, new technology in the United States has dried-up to virtually a stend-still, and I could not rely exclusively capturing my share of work with the same techniques that the other Consultants had available.

As a result of intensive work with Danish, German and Dutch Consulting firms and manufacturing firms, I have brought to this Country a new approach to wastewater treatment which I have been successful in implementing in six (6) projects, one (1) of which is constructed, one (1) for which bids have been received, two (2) of which are currently in the bidding stage, one (1) for which the detailed design is completed and under review by DER, and one (1) of which is in the detailed design stage.

I should clarify the statement that I brought to this Country this new technology. This technology was already available in part from an equipment manufacturer in the United States who is the licensee for a Dutch Consulting-Manufacturing firm, but I secured all of my information on this aspect of the technology directly from Holland.

This new technology, which also apparently qualifies by EPA definition as innovative technology, is best descirbed in a paper I prepared in 1978, entitled "A New, Low Cost, Low Energy Approach to Advanced Wastewater Treatment." This paper is contained in the attached List of Data as Item 8.

Supplementing this paper are two (2) additional items contained in the List of Data as Items 9 and 10. These are papers entitled:

"Discussion of Low-Load Aeration Process According to the Dutch Practice."

and

"Discussion of Low-Load Aeration Process According to the German Practice."

Both of these Discussions were developed in May, 1977 as a result of the aforementioned work with Dutch and German firms. There is no need to discuss them in this written testimony, since they are complete in themselves.

It is deemed necessary, however, to emphasize that these processess are Advanced Waste Treatment techniques at very low capital and energy costs, and that, in my judgement, they offer a means of providing large numbers of high degree waste treatment plants throughout the United States at much lower costs than conventional American design techniques. These processes are also very competitive, and actually probably significantly less costly in the majority of cases, to land application techniques.

The fact that they provide much higher degrees of treatment than conventional secondary treatment, at usually considerably less cost than secondary treatment, means that the effluent from these facilities is raised to a quality level where reuse of the wastewater for certain industrial applications or for ground recharging under certain conditions becomes a very practical potential.

It is my opinion that on the surface at least, these processes offer far greater potential for reuse or relamation, than land application techniques, at less cost, and at far less potentially undesirable environmental conditions.

This development of the new low cost, low energy requirement techniques leads to another area of the problem. Because the processes are so cost-effective, they offer a Community a means of moving ahead with needed projects at cost levels, when combined with the current EPA program time frames, that actually can result in less local dollars spent for a project than if EPA grants are accepted.

In this context, I had developed, in January 1979, a paper which is included in the attached List of Data, as Item 6. This paper is entitled "Analysis of Federal Grant Programs for Wastewater Projects and Comparison of Real Funding Situations Assuming

12% Annual Construction Inflation." This paper has its fundamental basis, a chart contained therein as Exhibit 1, which was originally developed by personnel of the Harrisburg Regional Office of the Pennsylvania Department of Environmental Resources, for their in-house use in projecting EPA program time frames. Reference to this Exhibit 1, which was prepared in May 1978, will indicate a minimum time frame of 394 elapsed weeks, or 7.58 years, from project identification fo project completion.

This Exhibit 1 is the basis for estimating the time frames in the previous section, with additional items not included in this 1978 graph, resulting in the 8.44 year duration previously indicated.

There is, in this same paper, a chart in Exhibit 2, which I prepared which utilizes a minimum grants projection for an FmHA project, and this projection is 219 weeks, or 4.2 years. This is perhaps the most damaging comparison of the fallability of the EPA program as it is currently constituted. Here is another Federal Agency, offering grant assistance, and also low cost loan assistance, which is able to complete projects in about ½ the time frame of EPA projects. Of course, FmHA projects are limited to Communities of 10,000 population or less, and grants are strictly on a "need" basis, and are not a "right." In fact, many Communities are totally turned down for FmHA assistance. But the FmHA Program has developed probably a greater number of projects which have been constructed, at least in Pennsylvania in the last 4-5 years, than has the EPA Program. As a catalyst for pollution control, FmHA stands head and shoulders above EPA. It has done more, with less dollars, and without all the myriad EPA regulations that are deemed so necessary to interpret the true intent of the Congress in the pollution control field.

There is also a minimum grants projection chart in Exhibit 3 of the paper in Item 6 of the List of Data attached, which projects a time frame for a project without any Federal assistance, that is, a totally locally-funded project. The estimated total elapsed time for a 100% locally funded, or conventional, project is 191 weeks, or 3.67 years.

This paper in item 6 takes these three (3) forms of projections, and develops curves to demonstrate the points where EPA grant funding actually begins to cost a Community more in local dollars, if they follow the EPA course.

This paper is in need of revision to include the increasing EPA time frame, but it is obvious that such a revision would only point out the fast-increasing deficiencies of EPA financing.

One other point of comparison is important. The 100% local, or conventional, project is figured at 191 weeks, or 3.67 years. Compare this with the 1967-1968 Hatfield Township Project which was completed in 4.6 years from the date of initiating the project, which also included 0.75 years of delay at the State level, unrelated to Federal requirements. In other words, the 1967-1968 project had a real time frame of 3.85 years, which compares most favorably with an estimated 3.67 years for an average project of far less complexity.

A final area of consideration in this section of the written testimony is the current situation in the United States with respect to developing new technology, and why

I had determined to seek the new technolgy practiced in Europe over the past several years.

As a result of my activities in seeking the data on these new European techniques, I had contact with equipment manufacturer's in Europe who were interested in marketing their equipment in the United States. I therefore, put together a paper in April 1977, which is Item 7, in the attached List of Data. This paper is entitled "Comments On The American Market With Respect To Sewage Process Designs And Sewage Equipment Sales."

This paper is an overview, as it appeared to me, in 1977, of the total situation in wastewater treatment in the United States. Much of this paper's contents are included in this written testimony, being modified, expanded, and brought up to 1979 consideration. It may, nevertheless, offer to the Sub-Committee members yet another aspect or view of the problem.

From this paper, it is easy to see that I regard the EPA program as restricting my flexibility as a Consulting Engineer, to meet the needs of my client, to whom I owe my total effort. I do not owe any allegiance to the EPA, and what I do, I generally have to fight for on EPA projects because of the regulations which restrict my performance.

For instance, I am not free to specify single-source items, or to specify a single manufacturer, without a tremendous problem with EPA. These people will say the mechanism exists under their regulations to do these things, but in the real world, it is almost impossible to satisfy a Federal Regulatory reviewer that a practical course of action is correct, if his guideline check-sheet doesn't specifically cover a situation.

I am not free to employ without considerable problem and justification, process designs which I am convinced are suitable for a particular application, but which have not yet been recognized by EPA, or, more generally, are unknown to the Federal reviewer. This is an area of considerable problem in that many Reviewers have little or no working field experience, and sometimes are unsure of their academic background to assess particular processes. Basically, if it isn't on the check-list, or in a design manual, its unacceptable. This same problem exists, but on a much restricted basis, with State reviewers, but much more flexibility rests with the Regional Offices of DER here in Pennsylvania, and the Central Office of DER is far more attuned to new technology than EPA.

I am not free to employ, because of the EPA rulings on restrictive specifications, devices such as the bidding and installation of major process equipment by the manufacturer, instead of through the general contractor at extra cost to the client, and to the Federal government if grant monies are involved.

There is one additional problem we have encountered, that bears on the EPA review phase, and which is becoming serious to us in EPA Region 3. With the many and continuing changes in EPA guidelines and rules, there has been significant shifting of job assignments within the region office. With the increasing time delays in EPA's project processing, it is not uncommon for two (2) or more separate individuals to become involved in the review during the life of the project's stay in the EPA offices. This invariably leads to problems in the review, such as re-furnishing

data which has been mis-placed in the transfer of the documents between one reviewer and another; the interpretation or re-interpretation of an already completed portion of the review by a new reviewer, which often involves a education process for the new reviewer; the need to meet new requirements and to continually up-date prior approved data because a new reviewer requires more than the first reviewer; and so on.

All of these items increase the engineering workload, and must be anticipated in the Engineer's fee proposal to his client. It must be evident that an Engineer must charge considerably more to complete a project under EPA guidelines, than he would if it were a fast-moving, 100% locally financed project.

There is a serious problem for Consultants, at least this Consultant, in that the time delays make forecasting cash flow a virtual impossibilty. Many of our contracts with clients require an action to trigger a payment of fees, and when the actions are delayed in the EPA review, the fees are delayed. This is why I have choosen to actively seek those projects where no EPA money is involved. I will accept and work on EPA projects, but I cannot let such projects be more than a small percentage of my workload at any one time, because I have already experienced the severe cash flow crunch that results when the majority of my current projects are EPA funded.

FUNDING OF WASTEWATER TREATMENT PROJECTS WITHOUT EPA GRANT PARTICIPATION

The contents of this written testimony to this point offers a number of reasons why I seek and am involved with a number of communities who have chosen to proceed with wastewater treatment projects, outside the scope of the EPA grant program.

Some of these communities are utilizing FmHA grant and loan financing, and one (1) community hopes to utilize FmHA loan funding only, since its wastewater project does not qualify for FmHA grant funding under the current FmHA "need" formulas for determining grant participation.

This Community, however, has a feasible project at sewer rental rates well within the envelope of existing Communities in its area of the State, even if it must proceed without the FmHA loan.

We have, also, a larger project of some $5,000,000 in scope, where the Community is moving ahead, and we are perhaps 30% completed with the detailed design phase, without any consideration of Federal assistance, either from grant or loan funds.

There are several factors which argue for this option of moving outside the scope of EPA.

First, the Community has the flexibility to plan for its own needs, as it sees those needs, without any interference from EPA, or Regional Clearinghouse Agencies who would dictate the size facility the Community must utilize. This is a very important fact, because the local Community is the best, and really the only credable source for projecting growth through building activity.

At this point, another digression is deemed necessary. I have talked at length about the 1967-1968 Hatfield Township Project. There is a later and current Hatfield Township Project, which I shall refer to as the 1973 Hatfield Township Project, because it was initiated in September 1973, upon Orders from DER to jointly plan with several other Communities, the expansion of the existing Hatfield Township Advanced Waste Treatment Plant. The history of activities from 1973 to date on this current project are detailed in the case history section in Item 11, but suffice it to say here that a major stumbling block to any real progress with this project in the last five years has been the stand of the County Planning Commission, and the Regional Planning Commission, both of whom must approve the social planning aspects of the project as they relate to growth projections.

To simplify the discussion, it is sufficient to state that we have on file a published document of the Regional Planning Commission which sets forth the population for Hatfield Township for the next two decades, as well as those of the potential other participating Communities. The Regional Planning Commission was explicit in their transmittal of this document that they would not approve any project which deviated more than ± 3% from the published projections.

The problem is that the 1974 population of Hatfield Township, as developed in a Special School Census, already exceeded the 1980 Regional Planning Commission forecast by some 3,000 persons, and with developer's plans already approved by the Township Planning Commissioners, the population by 1980 is forecast to exceed the 1995 Regional Planning Commission figures.

This fact of actual greater population in 1974-1976 than the Commission would allow for 1980, had no effect on the Planning Commission. They stated they had a population quota for the County, and the Township's share was what they published, and it really didn't matter if there were now more people than they forecast for 1980 and 1985, because they had no power to change their population forecast quotas. Yet this Agency has veto power over any plan developed by the Community to satisfy its needs as the Community saw them, under the EPA course of planning.

This is a much deeper problem, appalling as it is, than can be covered here. I would direct to the Sub-Committee's attention Mr. Roy B. Love, Executive Director, Hatfield Township Municipal Authority, Advance Lane, Colmar, Pennsylvania 18915. Telephone (215) 822-9300 or 822-0111. Mr. Love has intimate knowledge not only of this problem but also all of the COMAMP 208 Planning Work done in the Philadelphia-Eastern Pennsylvania area. I would urge the Sub-Committee to pursue this subject futher with Mr. Love directly. He would be more than happy to cooperate.

To return to the factors that argue in favor of moving without EPA funding, the obvious need of complying with such things as programmed public participation on the EPA scale, on minority business enterprise quotas, on wasted detailed consideration of land application of the waste, of detailed environmental assessments which are already readily apparent without the EPA depth of study, and the need to subject the project to the other social planning aspects of EPA, are some of the more compelling reasons. The Community will save in other outside professional fees, and in public relations costs, simply by avoiding EPA.

Aside from the very obvious time saving involved in a locally financed project the Community is under no constraints to include all the EPA dictums on restric-

tive specifications, nor are there any restrictions to utilizing proprietary processes or equipment if it is in its best interests to do so, and most importantly, a Community can exercise a flexibility in bidding certain equipment and materials in advance of Civil Construction bidding. This latter item involves a savings in money, and generally assures for less possibility of construction overruns from changed designs by reason of equipment being furnished with differenc characteristics than those designed. In short, its much less costly to design and construct a non-EPA job, than an EPA job.

There is also the fact that the costs of the project are not as subject to inflation, because the project normally proceeds to the bidding and contract award stage in manageable time frame, short enough that reasonable inflationary costs can be anticipated.

One of the significant factors that makes a non-EPA approach a feasible reality is the utilization of one of the forms of Low-Load Aeration, which has been previously mentioned, and which is detailed in items 8, 9 and 10 of the accompanying List of Data.

There is another element that argues for, and in some cases, compels a Community to forsake consideration of EPA grant funding. This element is apparently one that EPA does not recognize, and in fact, the EPA social planning requirements in most cases are geared in direct opposition to this element. This relates to continued housing growth in a Community, as being necessary to maintain a stable user charge level.

There are a number of Communities in Pennsylvania where existing waste treatment facilities have become overloaded, often due to the past growth rate, and sometimes due to the presence of excessive I/I, but more often a combination of both factors. Pennsylvania has instituted an excellent mechanism in the form of an Annual Report required from each Community which assesses the preceeding five (5) years hydraulic and organic loading on the system, and requires projection of the hydraulic and organic loadings in the succeeding five (5) year period. This Annual Report defines the status of the operation and pin-points with several year's warning, the point where the facilities will require expansion. It provides the lead-time necessary to accomplish the planning for, and implementation of, new facilities before a crisis overload situation is reached.

The program becomes workable, because a Community must identify specifically how it will cope with a projected overload situation in the coming five (5) year period. It is required to limit new connections to the system to prevent the overload from occuring before new facilities are provided. If the Community cannot, or is unwilling to, exercise this self-imposed restriction on growth until adequate capacities are available, then DER will issue a moratorium order banning, or severely restricting new connections.

This program is now two (2) years old and already it has required many Communities to begin the planning process, where they would have just waited before for the priorty points necessary to begin the long time-frame EPA process. As the program continues, with the DER enforcement power available and being utilized, Pennsylvania Communities will find they are compelled to move ahead with needed facilities, or face a total ban or severe restriction on growth.

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This is where economics will compel many Communities to proceed without EPA funding. One must understand, in this context, the economics of owning and operating a wastewater treatment facility. As recently as 5-7 years ago, the annual user charge rentals were geared to provide sufficient annual income to pay the bulk of annual costs required in the form of debt service. That is, the debt servic (i. e., principal and interest on Capital borrowing) generally was between 55% and 70% of the total annual requirement. Annual operating and maintenance (O & M) costs generally varied between 30% and 45% of the needed income.

This situation is now reversed, and in most Communities, the annual O & M costs on newer projects, and even on older, long-stable projects, is approaching the 50% to 60% range. Projections of cost of operation for several of our Communities for the next 5-7 years indicate that in a number of cases, by 1984-1986, the annual O & M costs will require up to 65% of the annual user charge income, while only 35% on an average will be required for debt service.

There is a simple explanation for this abrupt change. In a word, the explanation is inflation. The debt service costs are generally uniform costs, which remain stable throughout the life of a project, once fixed at bond financing settlement. It is, if you will, the annual mortgage payment, and like a house mortgage, is the same each year. O & M costs, on the other hand, are the costs which are affected by inflation. The major costs for O & M are labor, power or energy, fuel, water and chemical costs. Maintenance costs, which involve both materials and labor, are also an important element of O & M. All of these costs have inflated significantly in the past five (5) years, stimulated initially by the energy crisis of 1974.

Unfortunately, most of the existing wastewater treatment facilities are non-energy-efficient, since they were constructed in the era of cheap power. These plants are subjected to special pressures as costs of energy escalate. The importance of this simple item can be underscored by a specific example. The larger $5,000,000 project we are currently designing for Hampden Township, Cumberland County, Pennsylvania, to be financed 100% on a local basis, without Federal assistance, has an existing secondary STP, and the project will involve the construction of a second waste treatment plant located in the growth area of the Township, to provide, between the two (2) facilities, the needed capacity for the Community to the year 2000.

Te existing STP has a rated capacity of 1.76 MGD. The existing annual power costs to run this facility are averaging$67,000 per year. The new facility will be one of the Low-Load Aeration process facilities, with a design capacity of 4.0 MGD. Based upon connected horsepower, the energy power costs to operate this new facility are estimated at $29,000 per year, at current energy rates.

The existing plant, which used a typical American technology, and utilizes typical American equipment has an annual power cost requirement of ± $38,100/Million Gallons of Capacity. The new facility, which utilizes the new European technology, and which utilizes energy-effecient European equipment, will have an annual power cost requirement of ± $7,250/Million Gallons of Capacity. Thus, the new facility should be up to 5½ times more efficient to operate, on a volume of flow basis, than the existing facility. Since energy costs show no signs of slowing their upward spiral, This fact will assume even greater significance in future years.

It can be readily seen that in determining the correct process to utilize, the more important factor is no longer first cost, or capital cost, but rather, annual operating costs. A facility that can significantly reduce annual O & M costs, is far more suited to the needs of a Community, than a facility which has a lower initial cost. But, one of the important features of Low-Load Aeration is that capital costs are almost always much lower than conventional American treatment, usually by as much as 17%-22%. Thus, Low-Load Aeration would appear to offer the best of all worlds.

Now, in this context of energy efficiency, consider the latest EPA directive relating to land application of 33% of the Country's wastewater by 1983. Land application requires a degree of wastewater treatment prior to the land application. EPA in its wisdom has apparently decided that only primary treatment is required for this preparation for land application. This is highly arguable to anyone who understands the mechanics of wastewater treatment, which is probably the reason that here in Pennsylvania, secondary treatment has always been required for land application preparation. At least here in Pennsylvania, we will undoubtedly have to continue this secondary treatment of raw wastewater, before the liquid waste is rendered suitable for land application.

Now, I have previously detailed as the Hampden Township example, how the Low-Load Aeration process is up to 5½ times as energy efficient as conventional American Secondary Treatment. Detailed cost-effective analyses on a number of different process configurations were developed prior to initiating the current Hampden Township Low-Load Aeration design, and one of the considerations was a conventional American Secondary Treatment Plant. This cost-effective analysis indicated a capital advantage to Low-Load Aeration, over conventional activated sludge, of 16.5%. Thus, Low-Load Aeration, which produces a much higher effluent quality, and which also has the ability inherent in the process, with no extra cost excepting for increased air supply, to nitrify the waste is the superior process. So, for less total annual cost than would be required for a facility to pre-treat wastes to make them acceptable for land application, we can, and are, providing advanced waste treatment. But land application is primarily a spray-irrigation process, and spray-irrigation is a process which requires all of the waste to be pumped into the air for dispersal over large ground areas. Therefore, the cost of land application utilizing spray irrigation will be burdened even further by additional energy costs for the pumping of the wastes after the secondary treatment process.

For this purpose, centrifugal pumping would normally be utilized, and, unfortunately, in many cases, this type of pumping will involve low total dynamic heads, and the efficiency of centrifugal pumping of large water volumes at low heads is very poor, perhaps in an average 45-55% range. Thus the committment to additional in-efficient energy requirements by the utilization of land application techniques is unavoidable.

At this point, it must be clear that operating costs are a vital factor in annual user charges, even more than fixed costs. With O & M costs rising at a significant rate each year, consider a project here in Pennsylvania where the Annual Report required by DER has indicated either an existing overload condition,

existing overload condition, or an imminent overload condition. A moratorium on all new sewer connections, or at least an immediate severe restriction on the numbers of new connections annually is imposed. Essentially the user base is frozen at existing levels. Inflation pushes 60% of the annual user charge requirements up at a projected rate of 7% to 10% per year for the next foreseeable several years. The total annual cost increases. The rate base remains unchanged. The Community has initially two (2) options. It can postpone a user charge increase and deplete it's reserve funds, or it can initiate a user charge increase. The latter is politically, in this era of inflation, very unpopular.

Even if the immediate rate increase is opted for, it will normally only be sufficient for a few years at most, then the inflationary cycle will require another increase.

This is the situation as it affects the sewerage system and its user charge schedules. But there are other ramifications to this no growth policy. The Hampden Township situation is an example. Each new customer to the sewerage system means a new building in the Township. Each new building provides, in the form of a realty transfer tax, income to the Township general fund, to operate the services of the Township, unrelated to sewerage service. With no growth, there is no annual general income from realty transfer taxes. In the case of Hampden Township, at the last three (3) years average rate of new building construction in the Township, the general fund income from transfer taxes averaged the equivalent of almost two (2) mills in taxes.

The no growth situation means that this equivalent of almost a two-mill tax annual income is unavailable to the Township. Yet the Township services are perhaps even more affected by the inflationary forces at loose in the Country today. So, just to keep pace with inflation, and perhaps even requiring a cut-back on needed existing, general services, the Township requires this transfer tax income, unless general taxes are to become too burdensome on all the citizens.

Thus, the EPA social planning requirements, as emphasized in the appalling situation on population growth and planning commission vetos, cited earlier in the Hatfield Township case, works directly counter to this real, economic fact of life. No wonder Communities in this situation turn away from EPA restrictions.

In the Hampden Township situation, the growth potential, as evidenced by approved plans in the Township for new building construction over the next several years, actually offers the only hope the Township has to maintain both sewerage user charges and general taxes at the lowest manageable levels. Detailed economic analyses have indicated that the no-growth situation will require, by 1980, an increase in single-dwelling user charges from the current $144/year to $150/year, and in 1984, a further increase to $168/year. On the other hand, proceeding immediately with the expansion project, without EPA grant funds, or indeed any outside assistance, indicates an increase in sewer rentals in 1980 to $150/year will be sufficient to carry annual costs well beyong 1984 at a stabel user charge level. In other words, the exact same user-charge increase is required in 1980, whether the project proceeds or not, but if it doesn't proceed, additional increases will be required in 1984, in 1986, in 1988, and in 1990.

The economics of the real situation very clearly dictated that Hampden Township move ahead immediately. This they have done, and they could follow no other course. They obviously could not wait for the cumbersome EPA process. They do not now possess sufficient priority points to qualify for Step I planning. It appears that they would not qualify for 4-5 more years. Yet even if they qualified today, the analyses in this written testimony indicate that it would be in excess of eight (8) years before new capacity would be available. For Hampden Township to pursue the EPA course, it would appear to be 12-13 years before they could again operate in a growth situation.

This example of Hampden Township is repeated in a project which has been designed and is under review by DER. This project is for the Carlisle Suburban Authority, Cumberland County, Pennsylvania, and the situation, the effects of growth versus no-growth, and the conclusions reached were identical. A Low-Load Aeration Process made this project quite feasible, even without FmHA loan assistance, which the Community anticipates receiving.

We anticipate more and more of our existing clients, and many potentially new clients, will find themselves in similar situations, where the combination of all the major elements covered in this written testimony, will compel action outside of the scope of EPA. And, it may be said that the more regulations, restrictions, and social planning EPA imposes in the future, the less favorable EPA financing will become. I fully expect EPA, within five (5) years, to strangle on its own bureaucracy.

Before leaving this section on Funding Without EPA Grants, I should like to emphasize some pertinent points in the Case Histories, which are included in the attached List of Data, as Item 11.

There are, in Item 11, four (4) detailed case histories, and one (1) financial comparison. Some of the specific problems in these case histories have been cited previously herein. The first case history is that of the Hatfield Township Municipal Authority, and it requires no additional discussion, except to perhaps emphasize the point that the aborted detailed design for the 1973 project was completed at a cost of $350,000 in engineering design fees, for a plant of 7.0 MGD capacity, and significant sewer construction, to the point where construction could have commenced. However, the current estimate to retrace this project through the current EPA Step I phase alone, is $425,437. This, to me, is simply not defensible. It is a gross example of bureaucratic waste, which, if it had occurred in private industry, probably would have been subject to criminal investigation.

The second case history is for the Carlisle Suburban Authority, and is different in some respects from the Hatfield case, but is, unfortunately, quite similar in many areas. These people conscientiously expended, per the EPA then current guidelines, some $113,000, which is a price they must write-off, in order to meet their real needs in moving ahead without EPA funding. On balance, they have a bargain, because the alternative of waiting for EPA funding is simply economically untenable.

The third case history is that of The Municipal Authority of Zerbe Township. This project has not been referred to before, and it requires some additional comment.

This project never involved EPA funding, and was to be an FmHA grant-loan project. It was aborted at the 11th Hour - 59th minute stage and the primary reason given was that with EPA, a 75% grant is available, and with the FmHA financing, less than 20% grant was committed. If the Sub-Committee would follow the details in this case history, it would become clear that the less than 20% FmHA grant, when combined with the 5% rate FmHA loan, and defeasance of the outstanding bond issue, is actually less expensive in annual user charges, than the so-called 75% EPA grant.

This points out a very serious fact. It has been mentioned that almost every Community contains vocal individuals or groups who have determined that EPA grant funding is a right, and until it is available, nothing has to be done with waste-water projects. But even more serious is the fact that without exception, these people believe that 75% of all project costs are "free" as grants from EPA. We have found it virtually impossible to dispel this myth. When it is pointed out that the grant is 75% of eligible costs, and that many items are ineligible, and that an average treatment plant project might yield a grant of perhaps 40-45% of total project costs, and a combined treatment plant-collection system project might yield a grant of perhaps 45-55% of total project costs, we are simply not believed. The common statement is "Engineers can manipulate figures to make them say anything they want."

Unfortunately, this does happen, but in this case, real harm can be inflicted upon the economy of a Community because of failure to understand this basic principle.

The fourth case history is that of the Mount Holly Springs Borough Authority. This is a classic example of the regulatory trap a project can fall into. It has been mentioned earlier herein, that this entrapment has been further compounded by the MBE requirements. With respect to the MBE problem, the Authority intends to advertise the project within the week, with or without the approval of the State and EPA of the submitted MBE plan, and if problems occur, I would not be surprised to some form of litigation initiated against EPA.

The fifth item is not a case history, but a summarization of the actual FmHA cost of the project versus what an EPA project would have cost if EPA funding had been available. The conclusion is the same as for Zerbe Township. The myth of 75% EPA money compelled the development of this analysis.

ALTERNATIVE POSSIBILITIES FOR CURRENT GRANT PROGRAM

The written testimony herein is replete with problems with the EPA Construction Grants Program. The question that arises, is, what can be done with the Program to alleviate as many of these problems as possible.

First of all, it must be recognized that the portion of EPA involved in the Construction Grants Program under PL 92-500, has expanded enormously since its creation in the early 1970's. A massive bureaucracy has been created, and regulations upon regulations have been developed governing its actions. It is a practical evaluation of life that no action by the Congress will probably be possible to reshape this bureaucracy into the efficient organization that prevailed in the late 1960's when it was known as the Federal Water Pollution Control Administration.

I cannot visualize any action being practically possible to drastically revise EPA in this sector, to eliminate the prevailing social planning overtones, and to filter-out, review personnel lacking in real experience, and to replace them with professionals who understand the problems of implementing water pollution control.

That really is the rub of the problem. The policies developed as broad scopes by the Congress have not adequately recognized the factors that influence and shape wastewater treatment, and this has been further, and grieviously, compounded by the Congress giving EPA the power to interpret their broad goals through specific regulations, without continuing and close scrutiny by the Congress. These specific tions have been made primarily by social planners who either do not understand, or chose to ignore, the realities of the problem they were charged with implementing.

Pollution Control is not a neatly and precisely definable physical object. Each specific problem requires a specific investigation and the determination of the best combination of elements to achieve the desired level of pollution control. This is a large and vast Country. It contains literally scores of local general conditions which are peculiar to specific locations in the Country. No one set of elements can be developed that are right for every circumstance.

Yet, the implementation by EPA of PL 92-500 has attempted to create the Utopian situation of making a single goal applicable to every problem. Witness the 1984 "zero discharge" goal. Consider the "Regionalization" concepts of the early and middle 1970's, which are finally dying out as a general policy simply because they are often-times not practically implementable. Consider the most recent and current goal of "33% Land Application by 1983", which is the latest Utopian fad, and which, in my judgement, has no chance for success because of economic factors. Consider "Industrial Cost Recovery", which is currently in a hold status. Consider the detailed "Infiltration/Inflow" requirements, which are already being reshaped, because of the realities inherent in such activities.

What has EPA really accomplished in seven (7) years of PL 92-500 administration? Water pollution control projects have certainly not accelerated in number as had been hoped, and may even be declining, as witness the inability in many states to commit all the funds available in a fiscal year, because of the cumbersome review process. The time frame for completing an EPA project has lengthened to an estimated 4 8.5 years, under the best of circumstances. Compare this to the ± four (4) years for an FWPCA program, which has plodded along with a stable administrative situation since the middle 1960's.

The EPA control has been unable to shift gears to accomodate the economic factors of energy reliance, and inflation. It has not been able to encourage Research and Development of newer techniques, and in fact, by its policies, has actually prevented or discouraged needed, continuing R & D in the wastewater treatment field. It has created monumental problems in State Regulatory Agencies in the shifting, or attempted shifting, of review functions in the hope of speeding the procedures, and cutting down on excessive and increasing project costs. It has created a review procedure by such agencies as Regional Planning Commissions which can arbitrarily decide on a regional level what is best for a local Community, with full veto power over a project, totally unrelated to the technology of pollution control.

It spends tremendous sums of money each year in promulgating design manuals and cost experiences, which are out-dated or significantly changed by economic factors, or new technology, even before the ink is dry.

In short, I view the EPA administration of PL 92-500 as having progressed from a workable, albeit somewhat imperfect, situation in 1972, to a situation in 1979 where I can easily justify in many cases the economic necessity for a Community to ignore EPA funding, and to proceed on the conventional methods that were prevalent a decade ago.

Alternative No. 1 for the Congress would be to simply permit EPA to continue to function as it has, and to continue its administration of the Construction Grants Program at the 75% level, and to compete with non-EPA projects, if that is a proper term. I would suggest in this course of action that the Congress require EPA to review all its regulations and justify them to the Congress as having a practical content, as opposed to an emotional or unproven, theoretical content.

If this is the chosen course, I would fully expect the Construction Grants Program in the next 5-10 years to evaporate as a viable entity.

Alternative No. 2 for the Congress would be reassess the goals of PL 92-500, and re-consider some of the broad policies which EPA has defined into its specific regulations. Congress might well consider restricting the EPA review role to primarily the actual aspects, both environmentally and technologically, of pollution control. That is, EPA should not exercise "cradle-to-grave "control of every item involved in a project. It should not, for instance, be able ro require more in the way of intensive public participation, than local and State laws define for the ordinary conduct of any municipal or public business within the locality. Funding levels could remain as they presently are constituted. Hopefully the time frame for the process would reduce sufficiently for the Alternative to offer a Community a continuing, competetive source of funding.

Alternative No. 3 for the Congress might be to perform some major surgery on PL 92-500. It might, for instance, take EPA completely out of the grant funding of projects for Communities up to a specified size. It might reduce considerably the maximum permissable grants, and might introduce a fiscal "need" concept into the grant program, such as to insure that no Community has a "right" to any specific grant, or in fact any grant at all. It should, as per Alternate No. 2, restrict the ability of EPA to develop broad social conduct rules, at the expense of expediting the implementation of the actual pollution control facilities. This could very well restore EPA as a significant factor in implementing pollution control activities.

Alternative No. 4 would be to take EPA completely out of all Construction Grant Funding, and to replace this current function of EPA with a new organization, patterned after the FWPCA role of the 1960's, but expanded to include low cost loan funds, such as FmHA now offers, and to provide for a mechanism of annual grants to Communities to be applied on an unrestricted basis for debt service reduction, or towards O & M costs, or a combination, but not for futher capital construction. Capital grant funds could be available on a "need" basis, but the emphasis on financing assistance would be earmarked to combat the most troublesome area, inflationary O & M costs.

This latter Alternative would mean the creation of a new bureaucracy, which could ultimately develop the very problems its creation was intended to abate. The Congress alone could control this tendency, and not let the mistakes of the EPA program be repeated.

There are probably additional alternatives, and probably the solution would be a combination of salient features of several of the alternatives, In any event, I would respectfully suggest to the Congress that any solution other than Alternative No. 1, must imply a more vigilant overview of the activities of the Construction Grant Program, on a continuing basis.

The real factors that will shape the success or failure of any Construction Grants Program are the factors that affect the local pocketbook. All of the regulations in the world, including broad social control, will not cause an implementable program if a more economically feasible alternative is available to the local agency ultimately responsible for a wastewater treatment project.

The pressures of inflation, and the changing economic balance of O & M costs versus fixed debt service costs, coupled with the new Low-Load Aeration technology, are going to provide many more local communities with an option which has not heretofore been present. That is, to meet the problem as a local problem, not requiring Federal assistance, when that assistance imposes economic penalties.

Incidentally, as a last general observation, much has been said in this paper about the advantages of Low-Load Aeration. But, Low-Load Aeration is not a panacea, and certainly is not applicable to each and every situation. It, like all other process technology, must be simply one element, which may be the answer to a specific problem. It would be a significant mistake, for instance, for this process, with its several alternative forms, to be touted the way EPA is moving in land application areas.

One of the particular criticisms I have of EPA, is that I get the distinct impression that EPA views Consulting Engineers as incapable of carrying a project from inception to completion, without EPA guidance and control. I get the definite feeling that EPA feels themselves as the only protection that exists between a Community and its generally inefficient and perhaps unscrupulous Engineer. I obviously don't agree with this condition, if in fact it does exist, and I wonder how we were able to do so much in the 1960's and early 1970's without the EPA. I offer the example fo the 1967-1968 Hatfield Township project as an example of what a majority of Consulting Engineers in this Country could produce, if we were unhampered by the restrictions the EPA program imposes.

SPECIFIC RECOMMENDATIONS CONCERNING EPA CONSTRUCTION GRANTS PROGRAM

In Item 12, of the accompanying List of Data, certain summary comments, and recommendations are provided. I feel that these recommendations could re-vitalize the grants program, and could direct the assistance to the areas of greatest problem.

I feel, and strongly recommend, that if nothing else, the grant program should be reduced in scope, perhaps to a 50% maximum of eligible costs, and to a 35%-40%

maximum of total project costs. It should introduce the "need" concept so that automatic assurance of a set grant percentage is eliminated. A new annual grant program, of perhaps 2-2½% of completed eligible construction costs be provided every community with waste treatment facilities as an unrestricted fund for application against debt service costs, or O & M costs, or a combination. In fact, if funds would not permit both front-end capital grants, and the so-called "operating" grants, then the capital grants should be eliminated.

In short, I feel the program should be tailored to meet the goal of reducing the annual user charge as much as possible, or at least, helping to restrain the upward movement of such charges by the inflationary pressures we face in this Country todya and in the forseeable future.

CONCLUSION

This written testimony is offered with a modest apology that it may well, in certain areas, have "gotten out of hand," and may tend to re-emphasize too many times a disenchantment with the current EPA Construction Grant Program.

The data covered herein utilized wherever possible, specific examples to illustrate problems. In other areas, it utilized considerations this Consultant has faced which do bear on the problem, and appear to be not given perhaps as much weight as they deserve.

The specific examples quoted in varying parts of this written testimony are by no means the only examples that could have been utilized. Time restraints alone prevented, for instance, the inclusion of a dozen more specific case histories.

This review, facing the Sub-Committee, and the Congress, is one of almost awesome content, and no matter what solution or solutions finally transpire, it will undoubtedly be a long series of comprises between ideal situations and practical situations.

I thank this Sub-Committee for the privelege of contributing this written testimony, and hope it may, in some small fashion, offer assistance in the Sub-Committee's consideration of the problem.

Respectfully submitted,

October 30, 1979

Tracy W. Greenlund, P.E.

FILE OF DATA
TO ACCOMPANY WRITTEN SUBMISSION
FOR
SUBCOMMITTEE ON OVERSIGHT AND REVIEW
ON
EPA GRANT PROGRAM PROBLEMS AND EXPERIENCES
OCTOBER 20, 1979

- Series Of Correspondence Dating From September 6, 1974 Through June 21, 1977, On Revisions In Grant Administration Requirements. DER And EPA.
- Listing Of Program Requirements Memoranda, Construction Grants Program. EPA.
- Construction Grants Program Issues Memos - March 1979 - EPA.
- Regional Policy For Increased Use Of Minority Consultants And Construction Contractors, April 1979 - EPA.
- Program Requirements Memoranda, HCD-02.8 - PRM #'s 79-7, 79-8 and 79-9 - EPA.
- Analysis Of Federal Grant Programs For Wastewater Projects And Comparison Of Real Funding Situations Assuming 12% Annual Construction Inflation - January 1979 - Tracy Engineers, Inc.
- Comments On The American Market With Respect To Sewage Process Designs And Sewage Equipment Sales - April 15, 1977 - Tracy Engineers, Inc.
- A New, Low Cost, Low Energy Approach To Advanced Wastewater Treatment - March 1978 - Tracy Engineers, Inc.
- Discussion Of Low-Load Aeration Process According To The Dutch Practice - May [illegible], 1977 - Tracy Engineers, Inc.

0. Discussion Of Low-Load Aeration Process According To The German Practice - May 25, 1977 - Tracy Engineers, Inc.

1. Histories Of Grant-Related Activities - Tracy Engineers, Inc.
   a. Hatfield Township Municipal Authority, Montgomery County, Pennsylvania.
   b. Carlisle Suburban Authority, Cumberland County, Pennsylvania.
   c. The Municipal Authority of Zerbe Township, Northumberland County, Pennsylvania
   d. Mt. Holly Springs Borough Authority, Cumberland County, Pennsylvania.
   e. Mahanoy City Municipal Authority, Schuylkill County, Pennsylvania (Limited To Cost Comparison Of FmHA And EPA Funding).

2. Recommendations Concerning EPA Construction Grant Program.

Mr. GREENLUND. I think that the areas that perhaps I might have anticipated covering in a little more depth are already well known to the subcommittee and that some of the things Mr. Klein brought up, I would have reinforced. They are all contained in my written testimony.

So I would like to turn to some specific examples because that is where the telling effects are.

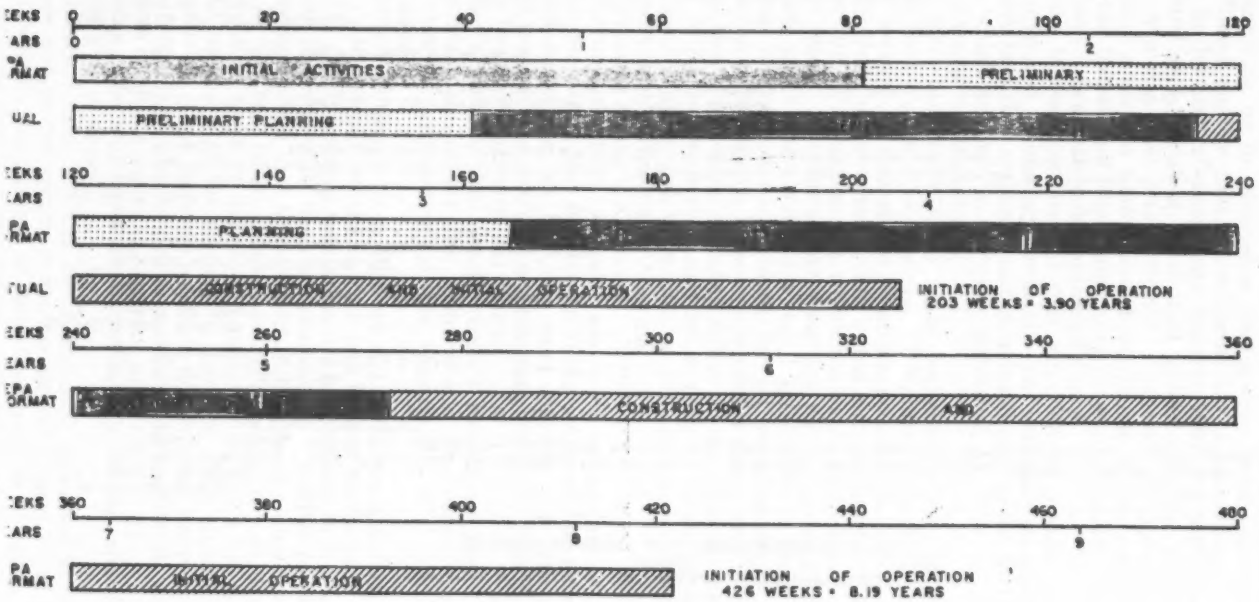
In our work with the construction grant program, time delays are just the killing factors. It really is. I have prepared, I think it may be in front of you, a graph which depicts a situation which I think bears directly on this.

With the committee's permission, I would like to include this chart in the record.

Mr. OBESTAR. Without objection, it is so ordered.

[The following was received for the record:]

COMPARISON OF PROGRESS OF 1967-1968 HATFIELD TOWNSHIP PROJECT
VS.
ESTIMATED PERFORMANCE UNDER EPA FORMAT



COMPARISON OF PROGESS OF 1967-1968 HATFIELD TOWNSHIP PROJECT
VERSUS
ESTIMATED PERFORMANCE UNDER CURRENT EPA FORMAT

1. INITIAL ACTIVITIES
   A. CURRENT EPA FORMAT
      (1) Identify Project; Intent of Delineate; Receive Comment on Delineation; Publication Delay and Delineation Comment; Intent to File Under OMPA-95; Clearance to File Under OMB-95; Pre-Application Meeting; Step I Pre-Application Submittal; DER Review and Step I Certification; EPA Review And Step I Grant Offer
      (2) TOTAL ELAPSED MINIMUM TIME = 81 Weeks = 1.56 Years
   B. 1967-1968 HATFIELD TOWNSHIP PROJECT
      (1) No Comparable Activities
      (2) TOTAL ELAPSED TIME = 0 Weeks = 0 Years

2. PRELIMINARY PLANNING
   A. CURRENT EPA FORMAT
      (1) Acceptance of Step I Grant; Preparation and Submission of 201 Facilities Plan; DER Review to EPA: EPA Review and Approval
      (2) TOTAL ELAPSED TIME = 84 Weeks = 1.62 Years
   B. 1967-1968 HATFIELD TOWNSHIP PROJECT
      (1) Preparation and Delivery of Comprehensive Report to DER
      (2) TOTAL ELAPSED TIME = 41 Weeks = 0.79 Years

3. DETAILED DESIGN
   A. CURRENT EPA FORMAT
      (1) Step II Application Submittal; DER Step II Certification; EPA Step II Review and Grant Offer; Complete Design DER Permit Approval Review; Step III Application Submitted; Permit Issued; DER Step III Certification; EPA Review and Step III Grant Offer
      (2) TOTAL ELAPSED TIME =114 Weeks = 2.19 Years
   B. 1967-1968 HATFIELD TOWNSHIP PROJECT
      (1) Detailed Design; Submission to DER; Review by DER and PMPCA; Permit Issuance
      (2) TOTAL ELAPSED TIME = 102 Weeks = 1.97 Years (NOTE: Included 27 Weeks of Delay By State Regulatory Agency Unrelated to Federal Requirements or Agencies)
      NET TOTAL ELAPSED TIME = 75 Weeks = 1.44 Years

4. CONSTRUCTION AND INITIAL OPERATION
   A. CURRENT EPA FORMAT
      (1) Project Bid; Contract Award; Start-To-work; Completion of Construction; Initiation of Operation
      (2)1 TOTAL ELAPSED TIME = 147 Weeks = 2.83 Years
   B. 1967-1968 HATFIELD TOWNSHIP PROJECT
      (1) Project Bid; Contract Award; Start-To-Work; Completion of Construction; Initiation of Operation
      (2) TOTAL ELAPSED TIME = 87 Weeks = 1.67 Years

Mr. GREENLUND. Back in 1967 and 1968, we had a community that was requiring us to produce a new sewage treatment plant with an effluent quality that I considered the most stringent. It was almost to the limit of technology. Back in 1967 and 1968, there was no technology to speak of, no unified technology. That particular project was one that was initiated, reviewed, designed, constructed within a certain time frame. I would like to contrast that with the time frame that that same project would require today because I think it is a rather dramatic difference.

I would like to mention the fact that this 1967–68 project, with the major advanced technology, probably was not—was so unique that the EPA issued a research and demonstration grant to this community which resulted in a report published by EPA on this project. So it was a significant one.

So, if you have this chart that I made available in front of you, you will see that a comparison of the EPA format, which is the present day method as opposed to what we actually did 10 years ago, indicate that under what I call initial activities which are applicable to the EPA format, but which we were not involved in, consumed 81 weeks. In other words, from the point you identify a problem to the point where you get a step 1 grant offer to begin to do something concrete under present format requires some 81 weeks. In my oral testimony, I have expanded a chart which was prepared by the Harrisburg regional office of the Pennsylvania Department of Environmental Resources as their in-house projection of how much time it took to process an EPA grant application. That is the basis I used for this EPA format.

Actually, the time frame is extended.

If you refer on the chart, you will see in 81 weeks under the present setup, we would just be getting to the point where we are ready to start something. In 1969, we were halfway through the design of the project. The preliminary planning or initial planning is essentially the step 1 activity, 201 study.

Under today's format, that would require something like 168 weeks, from start to achieve the point where you could begin design. We were 60 percent through the construction of that project in those days.

What it simply amounts to is that we did this very significant project in a little over 200 weeks, a little less than 4 years, back in the period 1967 to 1968, and it would require a minimum of 8 years now and, very frankly, with the restrictions that the EPA review process imposes, I doubt that that project would stand a chance of being built. It was new then. It was new technology. It just, I do not think, could be built in this 8-year time frame, and I am not sure it could be built at all under the current EPA situation.

I think that is a rather concrete example of what has happened, what our industry is capable of doing as consulting engineers, and what the future might be under the current program.

Mr. OBERSTAR. You will come back and zero in on the specific causes for that kind of delay?

Mr. GREENLUND. I think, first of all, in the data appended to the oral testimony and in the summary on the second page, I think it is rather self-evident, the number of steps that have to be taken. I discuss that in some depth in my written testimony which is sup-

plied to you. It is a matter of too many reviews and too many restrictions. It is that pure and simple.

Now, I would like to move on to an area that bears some additional discussion. In addition to this problem of the time frame, which is reflected in inflation, the longer something stretches, inflation is a real factor.

Basically it is my contention that the current conditions in the country, the economic situations, the energy problem, have simply passed the EPA program by for many, many communities. The program is simply not geared to cope with the changing situation and the situation has changed dramatically.

I know I am skipping around in my draft oral testimony——

Mr. OBERSTAR. No, no, you go right ahead.

Mr. GREENLUND. Getting right down to the meat of the thing, based on this time frame projection of the Pennsylvania DER back in 1978, I put together, early this year a pamphlet which is included in this written testimony, and it simply compares EPA funding methods against other methods of funding, the Farmers Home Administration, for the smaller communities, or no grant funding from anyone, just local sources, when you consider the effects of inflation.

That has been given rather wide circulation in central Pennsylvania, and it has resulted in several communities opting to proceed without Federal grant funding. The time frame is important, but what it really boils down to is simply that no program is ever going to be effective if it cannot be supported with the local pocketbook of the community. That is where everything comes down to on this wastewater treatment.

If a program helps reduce the cost to the individual, then it is going to be successful. If it does not help reduce the cost to the individual, if it actually impedes that situation, then it is going to be bypassed. It is a matter pure and simple of survival for the local communities.

It is such a complicated area. Take the question of innovative technology. This last week, while I was putting together this testimony, I had some of my people go to a seminar by EPA on innovative and new technologies. They brought home to me the latest manuals, so to speak, to relate to innovative technology. The only problem is that EPA defines this as land application of sewage waste, as was indicated at that meeting. The national goal by 1983 is 33 percent of all new wastewater facilities should be geared to put the waste back on the land, to recycle it, to reuse it.

Unfortunately, I really think that is totally at odds with the subject of energy conservation, and as a very practical matter, you are never going to do it. We have enough trouble in Pennsylvania in finding a place to put sewage sludge that is thoroughly digested and stabilized with the many restrictions, let alone having an untreated wastewater essentially put on the land.

In this report there are case upon case of cost curves and processes EPA considers innovative, or alternative. Unfortunately, I think what is new technology in this country is not in there.

As a small consulting engineer, and this will perhaps answer a question asked earlier, several years ago I decided in order to remain competitive in this business as a consulting engineer I

simply had to have something better than my competitors had, my competitor consulting engineers. So over the last 7 or 8 years I spent a great deal of time in Europe working with European consulting firms and manufacturers. I have brought over and utilized in this country some technology that is not really new, but it is new to this country.

It is what I call low-load aeration. In my written testimony you will find three rather detailed papers, detailing this information, and discussing it in some depth. With this new technology we have built and completed, and have operating one plant. We have received bids on another one. We have two in the bidding stage, one that is designed, and under review, and one that is under design. They range from a small industrial facility to a plant of 40,000 population. This new technology is low cost, low capital cost, and it is low energy cost. It has a place in the scheme of things, because it then makes it possible for a community to consider, with the EPA time frame as it now exists, the means of moving ahead without EPA funding.

We have several communities that are doing just that. In fact, several communities, and it very often turns out to be those communities that are suburban, and are facing some growing pressures. These communities must move without the EPA grant program.

My general view of the EPA grant program is that, unfortunately, it focuses on the wrong areas. It is heavily oriented toward capital grants for construction. Unfortunately in today's real world the construction costs are the least important factor really in a total project.

Mr. Klein and some of you gentlemen talked about life cycle costing. It used to be that in wastewater treatment plants that the cost of building and retiring the debt on a plant was the major factor in the annual user charge for any customer. It was perhaps 65, 75 percent of the annual cost that you collected from each customer. In the past several years it has started to reverse. It started with the energy crisis, and it has been compounded by the energy crisis we now have, and with inflation.

We are getting to the point where in forecasting we are looking at operating and maintenance costs consuming up to 65, 75 percent,—65 to 75 cents of every dollar from the user charge. That, unfortunately, is a trend that I think will continue. I really do not see much change in that.

Mr. ROE. What do you apply that to?

Mr. GREENLUND. There are a number of things. One is that wastewater treatment plants consume energy, and energy costs have gone high. The second thing is that most current technology wastewater treatment plants employ a significant amount of operating employees. The third thing is that most treatment plants rely on chemicals of one form or another for various types of aid in processing wastes, and those costs have gone up.

As the cost of those move up, also do maintenance costs, which are a combination of equipment and materials and labor, and so forth. So what I really, very strongly believe, is that in order for a program to have a significant effect on the pocketbook, the fellow that owns a house in the local community—it has to focus on that

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area, that is, the aid has to focus on the area that has the greatest impact.

It is true that operating and maintenance costs will consume 65 to 75 percent of the dollar, then the aid ought to be geared a little more in that direction, instead of on the 30 percent, which, once it is fixed, it is a fixed mortgage.

Mr. ROE. We have to get the plant built first.

Mr. GREENLUND. There are some factors that have to be taken into consideration first. Under the EPA format it would take 8 to 10 years to do it. Proceeding without the EPA funding, and even with Farmers Home you can cut that in half. That is exactly the situation.

For the past 15 years the Farmers Home Administration has been assisting towns of 10,000 or so, and doing the project in 3 to 4 years, the same project that will take 8 to 9 years with EPA. That program has been working well for 15, 16 years.

But without Federal funding at all we are free to cut the costs to the individual municipalities significantly. This new technology that I spoke of, this low-load aeration, is considerably less expensive than current technology. It has a lower future operating labor requirement, and it provides in growth-oriented communities a means of providing a needed service so that the growth will continue. That is a point that I would like to mention to you also.

We have several communities where growth has been stymied. We have in Pennsylvania what I consider an excellent program. The State Department of Environmental Resources requires an annual report to be developed by each community and filed annually. That report is to assess the previous 5 years' activities with respect to the wastewater treatment, the hydraulic loading, the organic loading. It must anticipate what is anticipated for the succeeding 5-year period. The whole purpose is to simply signal well in advance of a program the fact that that will occur.

You are projecting for 3 years down the line. That gives you 3 or 5 years leadtime. The program is only a few years old, and already it has shown it is working.

When there is an overload, the Department of Environmental Resources of the State of Pennsylvania can institute a ban on connections. In a growth suburban community that is really sort of a death threat. Most of these communities, to hold down their annual user charges, have simply got to depend on growth to bring in additional revenues at no capital costs, to cope with inflation.

So as far as the sewage system is concerned, any combination of factors that enables a municipality to do what has to be done in 3 years instead of 8 to 10 years, has to have an effect on the local pocketbook dollar.

There is another corollary to that. It is not only in wastewater treatment. It has effects on the general municipal services in a community. Because at least in the area where I practice, primarily in Pennsylvania, a new house that is connected to a sewage treatment has a realty transfer tax. That tax goes into the general fund of the community. We have a community which is detailed in this written testimony, where it is almost a 2-million situation, $60,000 a year in realty transfer taxes.

Under a ban or a growth limitation situation, because they cannot build a sewage treatment plant, that $60,000 a year is lost. That means that other municipal services, police, fire, roads, everything in general, will either have to suffer, or that additional income will have to be made up in additional taxes. It is not just a wastewater field. It has rippled throughout the entire industry.

This combination of extemporizing, which I apologize for, and the written testimony, leads me to some recommendations.

Mr. OBERSTAR. Could you sum those up? We are getting on toward noon, and the House is going into session. We will have to take a vote at the outset.

Mr. GREENLUND. My recommendations are that the grants are too high. They were too high in 1972, and they are too high now. They ought not to be more than the 35- or 40-percent level that prevailed back in the sixties.

The second thing is that there is no need factor in the EPA program at all. Everyone gets theoretically the same percentage grant, whether they need it or not. So money is being given to a number of communities to reduce sewer rentals well below those in surrounding communities, when some of that money could be better spent for communities that are too high above the level.

In other words, there is no need factor at all.

The third thing is that obviously there has to be less restriction on the consulting engineer, on the equipment, on the whole process, in order to speed up the time frame. It just simply has to be.

So, basically I am saying to you that whatever effects the local pocketbook has to be taken care of.

One additional thing is something we do in Pennsylvania. Every year a community that has a waste treatment facility has 2 percent of its eligible cost back as an annual sum of money to be used against operation and maintenance. If a portion of the grant front-end money were geared to something like that, it would attack the major problem, and that is the O. & M. costs that are going up.

I appreciate the opportunity of meeting with you, and I hope that the written data, which is in some depth, will be of some use to you.

Mr. OBERSTAR. We appreciate your presentation.

Mr. Jones, we appreciate your appearing here today.

Without objection your full statement will be printed in the record.

[The following was received for the record:]

STATEMENT OF CHARLES H. JONES, JORDAN, JONES & GOULDING, INC., ATLANTA, GA., K.W. KINDLE, KINDLE, STONE & ASSOCIATES, INC., LONGVIEW, TEX., JOHN R. LOVELAND, O'BRIEN & GERE ENGINEERS, INC., SYRACUSE, N.Y., PAUL A. KUHN, GREELEY & HANSON, CHICAGO, ILL., ON BEHALF OF THE AMERICAN CONSULTING ENGINEERS COUNCIL

Mr. Chairman, Members of the Subcommittee, my name is Charles H. Jones, Chairman of the Board of Jordan, Jones and Goulding, Inc., of Atlanta, Georgia. My firm has been engaged in wastewater treatment work for 20 years. We are currently under contract for some 75 jobs in this field for various clients, 90 percent of whom are in the state of Georgia. Our current contracts represent in the neighborhood of $10 million for communities ranging in size from less than 1,000 in excess of two million. We exclusively perform water and wastewater engineering.

I would like to introduce Mr. K. W. Kindle of Kindle, Stone & Associates, Inc., of Longview, Texas, a firm doing business in both Texas and Arkansas, with approximately 26 clients involved in the program with contracts totalling $1,260,000. Also,

Mr. John R. Loveland of O'Brien & Gere Engineers, Inc., of Syracuse, New York, with 50 program-related clients in 15 states, a staff of 310 and annual billings of $11 million. And Mr. Paul Kuhn, of Greeley and Hanson, Chicago, Illinois, with 52 EPA-assisted clients in 11 states and $71 million in contracts.

We are accompanied by Mr. Laurence D. Bory of the American Consulting Engineers Council staff.

I would also like to express the regrets of Mr. Jack Washburn of Boyle Engineering Corporation of Newport Beach, California, who would have been joining our panel today except for illness in his family.

The American Consulting Engineers Council (ACEC) includes among its national membership 3,500 engineering firms representing a total of 100,000 employees. Approximately 800 of those firms are actively engaged in planning and design of wastewater treatment systems for client local governments assisted by grants awarded by the U.S. Environmental Protection Agency. We estimate that our members engaged in water pollution control engineering are providing services on over 90 percent of all EPA-assisted wastewater engineering projects in the United States. Almost $1 billion in planning and design grants have been awarded since the Act's inception in 1973. Including funds for construction management by engineers, ACEC members have negotiated contracts with client local governments totalling almost $1 billion since the start of the program.

We would also like to note that we have responded to questions suggested by the Subcommittee staff.

ACEC participation in hearings on Public Law 92-500, the Clean Water Act of 1977, is well known. Engineering organizations testified, helped develop and participated with the agency in the establishment of the Clean Water Program. We have been consistently involved in the development of regulations, amendments to the Water Pollution Control Act, Program Guidance Memoranda, Program Requirements Memoranda, Program Operations Memoranda, the development of various manuals, studies, research projects and, in fact, almost every phase of the federal, regional and state implementation of the Federal Water Pollution Control Program.

As an organization of engineers deeply concerned with procedures delaying the construction program, it is our privilege and responsibility to appear before this Subcommittee to relate some of the problems and frustrations, as well as hopes for the future and recommendations to improve the Construction Grants Program.

ACEC's concern about the operation, administration and implementation of the Federal Water Pollution Act, and its mid-course correction, the Clean Water Act of 1977, intensified soon after the signing into law of the Clean Water Act. During the last two years, concerns and problems with the implementation of the Clean Water Act, as expressed by ACEC members, have more than doubled, based on written and verbal communications to our headquarters in Washington. We have been afforded several opportunities to provide input to EPA via advisory panels and other review organizations on the progress of the program. We believe that engineers have made a positive contribution to the agency and, likewise, the agency has been cooperative to engineers. However, during the last two years, our members and headquarters staff have become continually concerned that EPA may be as frustrated with the conduct of the program as are grantees, contractors, engineers and others.

We note the significant similarity between the questions and statement of purpose posed prior to this hearing and issues covered in the hearings held in 1975. I wish to quote a statement made by George Kopecky at the hearings chaired by Majority Leader Wright, when he was Chairman of this Subcommittee in 1975:

". . . we must report that the national program called for in the law has not moved smoothly forward. It probably is unrealistic yet to expect evidence of water cleanup directly attributable to the 1972 law.

"The most we probably could expect at this time is a sound program, being efficiently administered, with officials at all levels enthusiastic and confident about benefits to be delivered in the months and years ahead.

"Sadly, this is not the true picture. What we have is a program characterized by confusion controversy, and resignation. We do not, however believe the ailment is terminal, and that hopefully better days do lie ahead."

ACEC's concerns about the progress of the program include the slowdown in obligations, difficulty in negotiating contracts, state and agency indecisiveness, increasing numbers of regulations and so on. In short, the program is over-regulated and under managed. The economic impact of participating in the program for both grant recipients and engineers is also a concern.

It should be remembered that many consulting engineering firms were designing wastewater and drinking water treatment facilities, sanitary landfills, storm sewers and other environmental engineering projects for communities both small and large, long before the Construction Grants Program was created as part of the

Federal Water Pollution Control Act in 1972. The principle has always been the same—to develop a cost effective solution to the client's particular needs. But the Construction Grants Program has focused on permits and profit margins, rather than costs and clean-up. Planning, design and construction management projects are also subject to duplicative, redundant and frustrating audits which have contributed to extensive delays and impeded project progress. Consternation and confusion in grantees' minds resulting from EPA concern over contractual provisions or payments clauses have served to establish an adversary, rather than a team relationship between engineers and their clients.

In May 1979, these concerns and problems reached a point where the Board of Directors of ACEC felt they could no longer rely on the day-to-day contact between ACEC staff and EPA headquarters staff to try to resolve these issues. As a result, the Council's Environmental Committee, chaired by Mr. Loveland, spent two days discussing the Construction Grants Program and developing a compendium of both the problems and possible recommendations to speed up the program. From this list of over 40 items, several recommendations emerged. These recommendations plus a long-range strategy became the basis of "Operation PUMP" (Program to Untangle Municipal Projects).

At the annual meeting of ACEC in New Orleans, five issues were confirmed as the primary issues which should be addressed by members, contractors or municipal officials in visits to Congressmen and Senators during the summer and fall of 1979. Some of you have been personally contacted as a result of that program.

As of October 25, local elected officials, contractors and engineers from over 20 states have visited their Senators and Congressmen either in Washington or in the home districts to discuss specific problems they have experienced with the EPA Construction Grants Program.

EPA is not an agency with a single purpose or a uniform idea to carry it out. It is a regulatory agency operating under the mandate of seven major statutes passed by Congress since 1969, when the agency was created. Within this statutory/regulatory atmosphere, the Construction Grants Program is the one major assistance program providing funds and technical guidance to localities to solve a specific environmental control problem—pollution entering the nation's rivers and streams from municipal and industrial sources. It is ACEC's contention that the regulatory aspects of the agency and the specific regulatory responsibilities inherent in the Federal Water Pollution Control Act have expanded to adversely impact the implementation of the Construction Grants Program. Said another way—it is impossible for any concerned citizen to take issue with any of the statutory or regulatory requirements mandated under the program. Archaeological protection, Davis-Bacon, access-to-records, public participation, non-restrictive specifications—all are understandable and acceptable in their own right, but taken cumulatively along with several thousand other requirements, they have a suffocating and debilitating effect. There is so much to check—so many requirements or prohibitions—that government personnel fear making a decision and grantees and engineers fear proceeding without agency approval. The result is a stalemate of inactivity.

## II. SIGNIFICANT FACTORS AFFECTING THE PROGRAM'S PROGRESS

Documenting specific factors which have impeded the steady progress of projects through the construction grants process is a complex task. We believe the most significant problems can be categorized into four areas. We have identified and provided specific examples illustrative of these problems. These problems have unreasonably delayed project planning, design and construction, thereby increasing costs and, more importantly, delaying the abatement of water pollution. These few examples are representative of the problems which exist in hundreds of projects in every state and federal region.

These problems can be classified in four major categories:

A. Delays in decision making by both state and federal agencies.

B. The application of new regulations retroactively to existing projects.

C. Inconsistencies and conflict between the states and EPA over interpretation of regulations.

D. The special problems of small communities.

We will review these in turn and briefly identify specific communities and projects which exemplify the problems. Documentation and more complete case histories are appended to our testimony.

### *A. Delays in Decision Making*

The EPA construction grants process has so many built-in decision points at both the state and regional levels and, sometimes, even at the national level, that individual projects invariably will be delayed by time of review, requests for addi-

tional information, loss of files, exchanges of letters and many other minor and even petty ministerial acts which may add up to years of administrative delays and, in consequence, enormous increases in the cost of construction.

EPA originally estimated, in establishing the Construction Grants Program process, that facility plans should take an average of 18 months to complete from grant award to EPA approval. A facility plan, in EPA's view, is the most important of the process and we cannot disagree. The facility plan analyzes the population to be served, computes the projected flow of wastewater, describes and analyzes alternative treatment systems, analyzes potential discharge points into area streams, examines innovative and alternative technology, estimates costs and, finally, provides a series of findings and recommendations and a conclusion as to which treatment system is most cost-effective and reliable.

EPA admits that the facility plan process is averaging 36 months, rather 18. The agency has undertaken a major analysis of the reasons for facility planning delays. We have appended a chart summarizing this analysis and some of our conclusions relative to the reasons for the delays. Without facility plan approval, however, projects cannot progress into design (plans and specifications) and construction.

The City of Austin, Texas, submitted a Step 1 grant application in March 1975, for the Govalle Wastewater Treatment Plant. The grant was awarded in June of the same year and the facility plan was completed by the engineering firm in August 1977. However, the facility plan could not be approved for 18 months, until February 1979, because of administrative delays between the State of Texas and EPA Region VI and the resolution of review comments. Four years and six months from the submittal of the Step 1 grant application, Step 2, the design of the treatment plant, has not commenced.

The City of Port Arthur has been identified, by the State of Texas, as a high priority pollution problem because of the high water table, poor soil conditions and high annual rainfall. The city has been under court order to accelerate its pollution control problems since Marth 1976, based on a state pollution enforcement suit.

The city, similar to the case of Austin, submitted a Step 1 facility plan application in 1974, which was approved in June of that year. The plan was completed by the engineer in September 1976, and received state approval in April 1977. The plan was not approved by EPA until October 1978, 18 months later. Much of that time, in the opinion of the applicant, was spent answering questions and waiting for replies for new information supplied to EPA. The application for the design of the project was submitted in May 1978. It took EPA 16 months to complete its review of the design application and the procurement requirements for hiring the engineer. The Step 2 grant offer was not made until September 1979. The design is estimated to be completed in December 1980, and construction to take an additional five years. The project, assuming no additional major delays, should be completed in 1985; a total time for planning, design and construction of 11 years and five months.

Mooresville, North Carolina, has been under an industrial moratorium for several years. The city has received 15 inquiries from new industry during 1978 to 1979. In each case, the inquiry has to be refused because of the lack of sewage treatment capacity.

The town received a Step 1 facilities planning grant in late 1974. The study was completed and submitted to the state and EPA in March 1976. The study underwent substantial revisions between May 1976, and May 1978. The final facility plan is very similar to the original, despite substantial changes in the supporting data based on new requirements, and was approved by EPA in January 1979. As of August 1979, no action has been taken on approval of the Step 2 design grant, despite the fact that it was submitted to the Atlanta Regional Office of EPA in October 1978.

*B. Changing Regulations Applied Retroactively*

The history of the Construction Grants Program has been one of the continuously changing regulations, program requirements memoranda (PRMs), program guidance memoranda (PMGs), program operations memoranda (POMs), administrative policies and other forms of informal guidance. EPA insists that informal guidance memos do not substantively change the program. But they do substantially slow down decision making on pending project reviews until regional and state offices determine what the regulations mean.

Since 1973, 73 PRMs or PGMs have been issued. At least 48 deal directly with the technical interpretation of the Clean Water Act, statutory requirements, cost allowability and management to state and regional EPA staff. Some of the PRMs have been revised and reissued almost on an annual basis. As a result, the guidance value to grantees and their engineers and, more importantly, to state and EPA regional reviewers is not only limited, but counterproductive.

A good example of the impact of reversal and reinterpretation of new regulations is a large regional sewage treatment system in Ocean County, New Jersey. Eight separate grant awards from EPA and the State of New Jersey totaling $276 million have been awarded to implement the approved regional plan. The basin plan, originally published in June 1973, by the New Jersey Department of Environmental Protection, recommended a regional sewage treatment plant to serve several communities in this coastal county. EPA reviewed the plan and approved the so-called "Central Service Area". Population projections were also reviewed by both the state and regional office of EPA. As a result of an inconsistency in population projections (the state's projections were shown to be significantly higher), the authority was required to expand treatment capacity to accommodate higher future growth. In 1974, the authority received a Step 2 design grant to prepare final plans and specifications. This was followed by a Step 3 grant to construct a 24 million gallon per day (MGD) treatment plant which, in 1979, was nearly complete and ready to start up. However, this plant will currently receive only one-half MGD of actual sewage flow because major changes in regulations by the state and EPA prohibited funding connector sewers and interceptors to the plant. The change in policy on the ineligibility of collector sewers, combined with 208 planning revisions, wetlands protection and reevaluation of septic systems, have all eliminated projected flow to the plant. The sewerage authority has applied to the state for a permit to divert two MGD of water from a local river simply to allow the plant to work at a minimal level. The cost of operating the facilities, at this reduced rate, will be substantial.

The Morning Creek Water Pollution Control Plant in Fulton County, Georgia, has also been significantly affected by new regulations retroactively applied. The plant was required in June 1975, to upgrade its discharge by July 1977. A facilities plan was begun which included infiltration/inflow analysis and diversion of part of the flow to a nearby plant. The state approved the plan and a design grant application in October 1977. EPA requested additional information in February 1978, regarding land treatment alternatives and awarded a grant amendment for additional evaluation in August 1978. In February 1979, the revised facility plan was resubmitted to the state and EPA. The evaluation of land treatment did not change the original facility plan's conclusions, but the retroactive application of the land treatment policy has delayed the project at least 18 months. The facility plan has not yet been approved. The plant is still not meeting the discharge standard and will not be upgraded to do so for at least several years. Meanwhile, the estimated costs of the project have increased significantly.

Ashboro, North Carolina, has been more sucessful. In January 1976, the city had its Step 3 construction grant and was ready to let bids on construction of the treatment facility. It was noted that the project did not have standby power, as required by EPA regulations. However, a special agreement with EPA permitted the standby power facility to be installed during a subsequent project, since the plant was scheduled to be expanded and additional treatment added to the facility. Approval of the construction contract by EPA confirmed the city's understanding that the agency had agreed to this schedule. However, after completion of construction, EPA refused to certify the plant without the standby power generator. The city was required to develop additional plans and specifications for the standby power project and it was not until February 1979, that approval for construction of the additional facility was completed. Although it has stood completed since 1978, the Ashboro treatment plant cannot be opened and is not reducing pollution in local streams because of the change in requirements on standby power generation.

Several Pennsylvania projects have also been substantially delayed, with resulting increased costs, because of changes in regulations. In Beaver County, Pennsylvania, the North Sewickley and Franklin Townships have been unable to secure approval of their Step 2 application for design of the sewage treatment plant. The delays, totaling four and a half years, are a result of additional facility planning requirements. In particular, they are a result of PRM 78-9, which required new strict standards for the eligibility of collector sewer systems in rural areas. The estimated cost of the delay is $8.1 million. Similarly, in Armstrong County, Pennsylvania, the West Hills Area Water Pollution Control Authority has been delayed for two and a half years trying to meet the requirements of PRM 78-9. The State Department of Environmental Resources is also having difficulty interpreting the new regulations as they apply to the authority's facility plan. The estimated cost of the delay is $7.6 million.

Changing requirements are not restricted to large regional facilities or even smaller cities. The town of Norwood, Minnesota, population 1,058, had a Step 1 application approved in July 1973. The town has patiently and methodically responded to changes in regulations, including the performance of an infiltration/inflow study. Rehabilitation of the town's sewers, which cost $50,000, was paid for

by the town and completed in October 1973. The preparation of a sewer system evaluation survey in January 1977, the completion of an industrial cost recovery plan in October 1977, allowed submission of the final facility plan in December of that year. The town was informed by the state and by EPA that the preparation of a sludge management plan could be prepared during Step 2 and need not be completed in Step 1. Consequently, the town applied for a Step 2 design grant in January 1978. After ten months, EPA informed the town that the new regulations, issued in 1978, required that sludge management plans be completed as part of Step 1 and, therefore, their Step 2 application could not be approved. The town applied for an amendment for the preparation of a sludge management plan in January 1979, and filed a combined Step 2/Step 3 application in June. To date, their Step 1 facility plan has not been approved, despite the fact that it is more than six years since the Step 1 grant was awarded. Disagreement between the state and EPA over the discharge requirements for the town's pollution control facility has delayed approval of the sludge amendment, which presumably would complete the facility plan.

*C. Conflicts Resulting From Delegation to the States*

Congress specifically required in the Federal Water Pollution Control Act and in the Clean Water Act Amendments of 1977 that the states should manage the Construction Grants Program. Twenty-seven states have negotiated agreements with EPA. However, such agreements do not include authority to approve and guide local governments through the complex construction grants process. The regional offices of EPA are constantly "looking over the states' shoulders". This often causes many disagreements to the disadvantage of the local community attempting to comply with the discharge standards and complete their pollution control facilities at a reasonable cost.

Much of the conflict between the states and EPA has focused on water quality standards. The Clean Water Act specifically grants the states authority to require a higher level of treatment than required by Congress and EPA (Sec. 510). Many of the states have utilized this authority to set stream standards and discharge permits to require advanced waste treatment (AWT) or advanced secondary treatment (AST). This has been further complicated by the Appropriations Committee's requirement that AWT or AST projects must be personally reviewed by the Administrator of EPA if they exceed $1 million in increased cost. The net result has been to delay hundreds of projects. Many of these projects have never been justified for AWT discharge by in-stream waste load allocation studies. But arguments on theoretical models are often self-defeating. Until very recently waste load allocation studies were not grant eligible. Rather than fight the standards, many engineers believed it was in the best interest of the client to get on with the task of planning and designing the necessary facilities.

In Bemidji, Minnesota, land treatment was recommended to upgrade the town's existing treatment plant as early as 1972. However, the Minnesota Environmental Agency rejected the recommendation in April 1973. An alternative engineering report on mechanical treatment alternatives was prepared and submitted to the state in December 1973. In 1977, after further engineering analysis of land application, EPA required an Environmental Impact Statement (EIS) to be prepared. Completion of the EIS was delayed because of disagreement between the state and EPA over the content of the alternatives evaluation. In 1979, seven years after the preliminary engineering report, EPA decided that more Step 1 planning was required. A Step 1 grant was approved by EPA in June 1979, and engineering work is proceeding. Resolution of the conflict between the state and EPA is uncertain at this time.

A similar situation developed in Olivia, Minnesota. This town of 4,000 determined that its treatment plant needed to be upgraded and expanded in 1974. A Step 1 application for a facility planning grant was submitted in 1975. After completion of infiltration/inflow analysis, sewer system evaluation survey and other new facility plan requirements, the state pollution control agency approved the facility plan in February 1979. However, EPA has not yet approved the plan because of disagreement between EPA and the Minnesota agency on effluent standards. EPA is insisting that the level of treatment required by the state agency is not necessary. The town has submitted a combined Step 2/Step 3 grant application to accelerate the project's progress. It appears that the project will proceed as a secondary treatment system with the capability to add AWT if this is proved to be necessary. The original estimated cost of the treatment plant upgrade and expansion was $1.5 million. The town is concerned that the total cost will more than double by the time construction can proceed.

The state does not always insist on higher treatment standards, however. The City of Glennville, Georgia (population 3,000) completed planning and design for a

bio-disc process AWT in early 1978. In December, a Step 3 grant for $1.4 million was awarded for the $2 million project. However, streams surveys performed by the state allowed relaxation of the discharge standards to secondary treatment. Redesign of the plant, approved by EPA, produced a cost saving of almost $500,000 in construction costs. However, EPA required a field survey because it did not accept the state's conclusion on the impact on stream quality. The field survey has satisfied the state that it was correct. The continuing delay of EPA approval is costing $19,000/month in increased construction cost.

The situation in Olivia and Bimidji is estimated to be occurring in more than 700 communities in the states of Wisconsin, Illinois and Michigan. AWT reviews and conflicts between state and federal discharge standards are also significant problems in Georgia, Pennsylvania and Massachusetts. EPA recently recognized the problem of water quality standards by the issuance of PRM 79-11, which permits the use of EPA Section 201 grant funds to do waste load allocation analyses to resolve AWT conflicts.

State/EPA conflicts are by no means restricted, however, to water quality standards. The review of engineering contracts for the performance of the facility plans and designs is also a recurring problem. OMB Circular A-102 establishes standards for the administration of grants to states and localities. Attachment O issued under this circular premits states and localities to establish their own standards and cost principles when using federal grant funds. EPA, however, has insisted that Circular A-102 does not apply to the Construction Grants Program and has developed its own standards, known as Appendix C-1 in regulations issued under the Construction Grants Program. The attitude of EPA, to date, is expressed in a letter from Regional Administrator John White to Congressman L. H. Fountain of North Carolina.

"Procurement has been one of the most controversial areas of the Program and very difficult to administer in a manner satisfactory to all parties. The indication about the non-utilization of Attachment O to OMB Circular A-102 is very carefully couched to reflect that local government has the capability to meet the requirements. It should be noted that Attachment O required the grantor agency to certify procurement systems at least every two years and provides assistance to develop and maintain those systems. *Our experience to date in this region (Region IV) is that, to our knowledge, there are no acceptable procurement systems in some 2,700 potential grantees.*" (Emphasis added.)

We do not understand why the states, in accepting the authority under Section 205(g) delegation agreements, cannot establish procurement standards for communities that have not established their own.

The letter goes on to say:

"EPA is currently studying Attachment O to determine what kind of regulations would be necessary. It is our opinion that EPA will ask OMB for an exception to the circular and continue with current regulations that were approved by OMB."

A complete copy of this letter is attached as an appendix to this testimony.

*D. Special Problems of Small Communities in Responding to the Requirements of the Construction Grants Program*

Small communities have been given special recognition in the 1977 amendment to the Federal Water Pollution Control Act. Similarly, in the EPA construction grant regulations issued in 1978, communities with populations under 25,000 are given special exemption from certain procurement and other regulations. However, the sum total of the regulatory impact on small communities is substantial. These communities generally have part-time elected officials and rarely have full-time staff. It usually falls on the engineer to interpret the regulations and advise the client local government on how to respond to them. Engineers, in fact, often end up preparing the grant applications for local governments. (Preparation time is an ineligible cost under EPA procurement regulations.) In the 1975 hearings on the Construction Grants Program conducted by this subcommittee, it was suggested that small communities should have fewer regulatory requirements to qualify for grant assistance. We agree with this assessment. The problem is still true today. Small communities comprise almost 80 percent of the total projects awarded by EPA. Forty-six percent of the grants awarded by EPA are to communities with populations of less than 3,500. Special requirements that do not have water quality benefits, such as public participation, archaeological and historical analysis and minority business enterprise among others, are particularly burdensome during the facility planning process. Many ACEC member firms that serve small communities have reported to us that preparation of facility plans costs as much as construction of the water pollution control facilities because of the necessity to comply with all the requirements. Two cases are offered to describe the problems of small communities.

Edgerton, Wisconsin, is a small community with a population of 4,100. After submission of a Step 1 application in early 1976, the grant was awarded in December of that year. Because of changes in regulations, a sewer system evaluation survey amendment to the grant was applied for in April 1977. The state approved the amendment in March 1978, and EPA approved the amendment two years after it was requested, in May 1979. A second amendment to perform an archaeological survey was submitted in June 1978. An environmental assessment and cost-effectiveness analysis was approved by the State in November 1978. In the same month the state, after completion of the Step 1 plan, approved an application for Step 2. During February and March the engineering firm selected by the town to perform the design was evaluated in a pre-award audit. In June 1979, more than six months after the submission of the facility plan, EPA requested additional Step 1 information. At the current time, the facility plan has not been approved and the Step 2 design grant award has not been issued by EPA. Almost three years have passed since the original application was approved and the town of Edgerton, Wisconsin, is no closer to abating the pollution for its 4,100 residents.

Ellisville, Missouri, population 4,500, has a similar story. In 1972, a preliminary engineering plan suggested that a small improvement to the town's sewage treatment plant would meet the upgraded discharge standards. The estimated cost was $200,000. In 1973, the town began the process to secure these funds from EPA. Since that time, EPA has required the following to be performed: The engineering contract was required to be modified to conform with Appendix C-1 procurement rules under the 1974 regulations; EPA required the town to prepare an environmental assessment, despite the fact that no new facility was contemplated; EPA required the town to agree to interconnect with a regional sewage treatment system if one was ever built, despite the fact that no plans then existed for Ellisville to connect with any of its neighbors; EPA required the community to develop and pass an industrial cost recovery ordinance, despite the fact that no industrial discharges were entering the sewage treatment plant; EPA required the preparation of a complete operation and maintenance manual for the entire facility, despite the fact that the request for funds was related to only a small portion of the grant; EPA required the preparation of a user charge ordinance and a change in the system currently in use by the town of charging for sewage treatment based on water company rates by class. The town clearly demonstrated to EPA that implementation of a user charge ordinance would substantially increase the cost of administration and therefore the cost of sewage treatment per user in the town. After five years, the town has made the torturous way through the process, completed the construction and the plant is meeting the new discharge standards. However, EPA, in late 1979, has still not made the final payments and the project cost has more than doubled since the original estimate in 1972.

### III. POSITIVE STEPS TAKEN BY EPA TO IMPROVE AND STREAMLINE THE CONSTRUCTION GRANTS PROGRAM

As noted, ACEC and its member state organizations have been meeting with national, regional and state level EPA officials for many years. Repeatedly we and others associated with this program have been encouraged that means were being worked out to cut through the more onerous and burdensome regulatory and statutory requirements. A Management Advisory Group was formed, studies were made, a "Steam Team" recommended numerous changes, but rather than program acceleration, progress continued to slow. Three weeks ago, representatives of ACEC, the National Society of Professional Engineers and the American Society of Civil Engineers were offered an opportunity to meet with Administrator Costle and Assistant-Administrator-designate Beck, as well as Deputy Assistant Administrator Longest, to discuss the Construction Grants Program. At that meeting, the engineers offered their support to the agency and indicated their concern that the program was in serious trouble unless a turn-around could be effected. Mr. Beck promised to be back to us within a week regarding a follow-up meeting.

We were also encouraged, on July 27 of this year, when a proposed amendment prohibiting retroactive regulations in the FY '80 construction grants appropriation was withdrawn following receipt of an EPA letter to Senator Muskie promising to eliminate retroactive regulations in Step 3, the construction phase of the Construction Grants Program. More than three months later, if this simple change has been implemented, we are not aware of it. However, we recently received a copy of a letter to Senator Bellmon from Administrator Costle (see appendix) describing why retroactivity cannot apply to Step 1, even when, as described above, a community has been attempting to get a Step 1 plan approved that was begun five years previously.

EPA also appears to be making significant efforts to re-direct its focus in grantee procurement of engineering services. Increasingly, in approving engineering service agreements, EPA has proved to be more concerned with the engineer's percentage of profit than with his total fee. An effort currently under way proposes to establish a means for looking first at quality and cost of services, rather than at percentage of profit. This should eliminate repetition of situations in which EPA officials opted for higher total engineering costs (including, on occasion, higher profits) in order to reduce the profit percentage. However, if the net effect is to reduce engineering effort to the lowest common denominator, costs of treatment systems will only increase. Contractors will increase their bids if engineering is of lower quality. There will be more overruns in construction costs and start-up and maintenance will also increase. Saving money on engineering will only add to increased life-cycle costs.

We would also like to compliment EPA's change in the AWT review policy. AWT review was required by the appropriations committee to reduce costs by determining whether advanced wastewater treatment was cost-effective, based on additional water quality benefits. Unfortunately, the appropriations committee required that projects which exceeded $1 million in additional construction costs had to be personally approved by the Administrator. Our Council supports an EPA proposal (accepted by the House Appropriations Committee) to raise the sign-off limit to $3 million. EPA also intends to permit the regions, and states granted delegation authority, to prepare the reviews for the Administrator's approval.

We would also like to note that EPA has promised to consider recommended changes in the Construction Grants Program offered not only by ACEC, but also by the Association of State and Interstate Water Pollution Control Administrators (ASWIPCA), the Association of Metropolitan Sewerage Agencies (AMSA), the National Utility Contractors (NUCA) and the Water and Wastewater Equipment Manufacturers (WWEMA). These suggestions, combined with EPA's promise, provide hope for improvement of the program.

We are also favorably impressed by Henry Longest, EPA's new Assistant Administrator for Water Program Operations. We have found Mr. Longest to be candid, frank and willing to not only listen to engineers' concerns, but to attempt to work in partnership with the design and construction community.

## IV. ENGINEERS' VIEW OF INNOVATIVE AND ALTERNATIVE TECHNOLOGY

The innovative and alternative technology amendments to the 1977 Clean Water Act have been the subject of much controversy in the Construction Grants Program. Much of this controversy is related to the requirement that projects in the design stage had to be reviewed for innovative and alternative technology, particularly land treatment. This provision has generated considerable confusion in the regions and states over the application of the so-called Costle policy issued in 1977 and the intent of Congress in requiring I&A reviews.

Qualifying for additional funds under the 85 percent bonus system has been extremely difficult, largely because the definition of what is innovative and alternative has been poorly understood by the states and regions. Consulting engineers have found that what is innovative in one region may be alternative in another and may be conventional in a third.

In September of this year, EPA finalized a 300-page manual on innovative and alternative technology which described over 100 wastewater treatment processes. These processes and elements of different wastewater treatment cover the range of possibilities for innovative and alternative technology. They also define the specific criteria in terms of cost and energy saving for qualifying conventional technology for the bonus. Because of its size and complexity, the manual has, so far, done little to speed up decision making by either grantees, states or EPA regions. Because of the inherent delays already built into the process described above, many engineers have been reluctant to attempt to sell their clients on an innovative and alternative process which could further delay approval of facility plans and designs.

The cost and energy saving criteria established by EPA, moreover, made it extremely difficult to qualify conventional treatment for the ten percent bonus in federal grant assistance. In its preliminary regulations, EPA required that to qualify, a treatment plant design should be 15 percent more cost effective than a conventional treatment system meeting the same discharge standards. With regard to energy, the treatment process was required to demonstrate an over-all 20 percent saving in the entire treatment plant.

The primary energy consumers in a wastewater treatment plant are heating and pumping. While innovation and design in any one process area can save substantially the energy required, a 20 percent over-all saving in the entire plant design is extremely difficult to achieve.

Many of the innovations desired by grantees have also been determined by EPA to be ineligible for funding under the Clean Water Act. This is particularly true with regard to pollution problems related to combined sewer overflow which is also part of an urban drainage situation in the locality. The upper Midwest is particularly plagued with this problem and EPA Region V has been extremely reluctant to fund CSO projects which will also relieve urban flooding.

Another example of the so-called multi-purpose project which uses innovative technology is co-incineration of sewage sludge and solid waste. While the use of sludge as a fuel to recover energy at a treatment plant has been approved as an innovative technology eligible for the 10 percent bonus, the co-incineration of sludge with solid waste has been determined by EPA to be outside the Act and, therefore an ineligible cost. Yet co-incineration, especially in areas such as northern New Jersey, which must eliminate ocean dumping of sludge by 1981, may be the only technology which will solve both problems in this densely urban area.

We note in passing the design of a project recently hailed by EPA in Wilton, Maine. This half mgd treatment plant uses passive and active solar energy, methane recovery from anaerobic digestion of sludge and the insulating qualities of the earth and snow in the design of the exterior buildings to reduce heat loss. Although EPA has widely hailed the use of solar energy in the project, the greatest energy saving has been realized by the inclusion of heat exchangers in the effluent stream.

Engineers will actively support innovative and alternative technology which leads to cost saving and energy recovery. The Subcommittee's attention is drawn to a recent issue of "Engineering New Record" which describes many projects aimed at precisely this purpose. However, the innovative and alternative technology regulations, as established by EPA, have not encouraged many engineers to pursue the program to qualify for the additional 10 percent primarily because of the restrictive application of the regulations and the increased delay inherent in qualifying for the bonus.

## V. LOCAL FUNDING OF WASTEWATER PROJECTS

The offer of 75 percent grant assistance has been a substantial inducement to most local communities faces with the prospect of building facilities to meet a discharge standard which their current wastewater treatment facilities cannot now meet. Local governments strongly feel that state and federally mandated standards should be paid in part by state and federal funds and, in fact, several states have agreed to provide front-end or matching funds to reduce the local share of the planning, design and construction of wastewater treatment facilities up to 15 or even 20 percent of the total cost of the project. This means that local communities in these states pay as little as five to ten percent of the total cost of the project.

In Wisconsin, local projects for Step 1 facility planning and even Step 2 plans and specifications or wastewater treatment design can be entirely funded out of the state fund. This has caused several Step 1 and 2 projects to proceed without EPA participation. Thus, Wisconsin has been able to expedite the first two less expensive stages of treatment plant construction allowing the state to accelerate obligation of its federal allocation.

The state of Massachusetts has also established a fund for wastewater treatment projects and many projects have been built using the Massachusetts fund. However, state funding can be a source of conflict between the state and EPA over wastewater treatment alternatives. In Williamstown, Massachusetts, the state required the town to consider a regional treatment plant, including installation of a substantial sewage collection system. EPA, however, suggested that several alternatives to a regional plant be considered. Over four and a half years following the completion of a prelimianary report and a facility plan, the state and EPA continue to disagree as to the proper way to proceed to solve the town's pollution problem.

In a small number of cases, localities have decided to locally fund a project themselves. The principal reason is usually that federal funding is either impossible or will be long delayed, thereby substantially increasing the cost of the treatment facility.

The City of Houston has been attempting to design and build several treatment plants since the early seventies. Recently, the city decided to pay for the design of one of its plants out of local funds, rather than wait for resolution of conflicts between the state of Texas and Region VI of EPA. In this manner, they hope to avoid inflationary cost of construction increases once the design is completed.

Engineering contracts for the Atlanta, Georgia, Three Rivers Water Quality Management Program were negotiated and work started without EPA approval because the city did not want additional delay, hence additional cost, on design of this $200 million project. The engineers were paid with local funds while EPA reviewed the complex contracts. This review took EPA more than one year. The city risked EPA

disapproval of the contracts and resultant denial of the request for reimbursement of the engineering work performed. Had the city waited for EPA approval, the one-year delay would have added several million dollars to the total cost of the project.

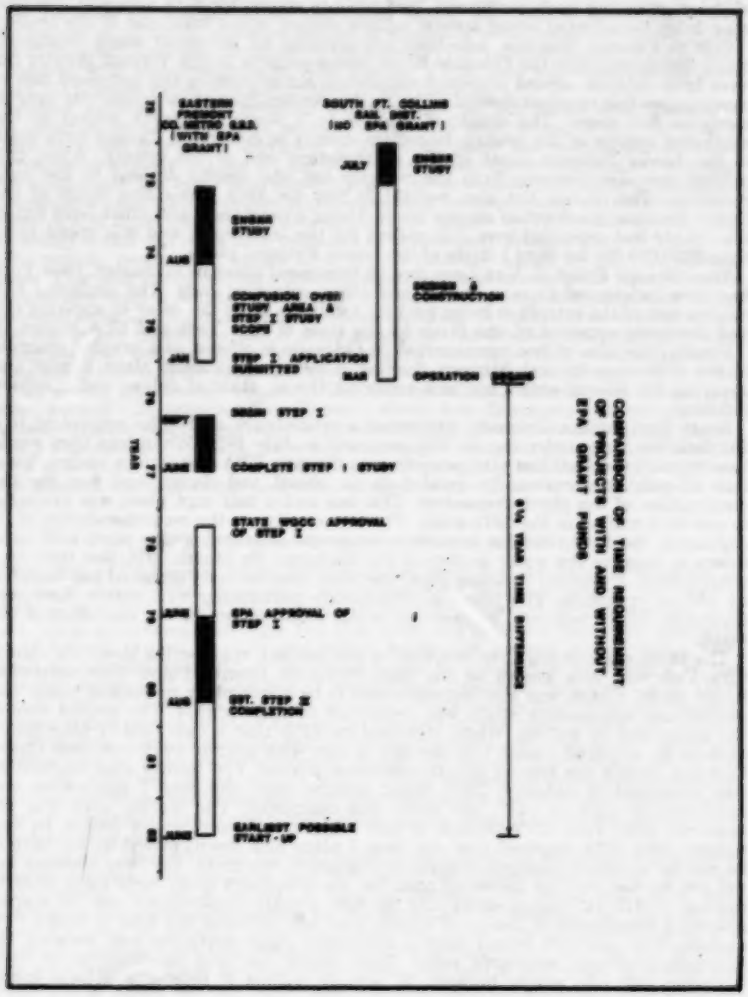
Fairfax County, Virginia, has been constructing an advanced waste treatment plant discharging into the Potomac River. Many projects on the Virgina priority list have been delayed beyond projected completion slates because the increased cost of construction has required federal payment for construction to be spread out over as many as five years. The denial of priority to a waste treatment project in the northwest section of the county, forced the county to consider a 25-mile force main to the Lower Potomac plant in the southeastern end of the county. When this project was also removed from the priority list, the county decided to use local resources. The county has also decided to pay for Step 1 re-rating study of the Lower Potomac plant out of county funds. Using a bond issue and other local funds, the county has expended over $10 million for the interceptor and will spend more than $250,000 for the Step 1 study of the Lower Potomac plant.

The 100 mgd Frank E. Van Lare sewage treatment plant in Rochester, New York has been redesigned to save energy and other operating costs. The projected $2.6 million cost of the retrofit is being paid for locally to avoid the delay in applying for, and obtaining approval of, the funds by the state of New York and EPA Region II.

Finally, the case of two communities in Colorado is offered as a graphic example of the difference in cost between funding a sewage treatment plant locally and applying for federal assistance and enduring the substantial delays and resulting inflation.

South Fort Collins, Colorado, performed a preliminary study (the equivalent to a 201 facilities plan under the old 660 program) in July 1972. When told they would have to redo the facilities plan according to the new EPA regulations under Public Law 92-500, the community decided to go ahead and design and pay for the construction of the plant themselves. This one and a half mgd plant was projected to cost $1.5 million in the 1972 study. The community, on the recommendation of its engineers, decided to build a secondary treatment activated sludge plant with sand filters to improve the water quality of the discharge. By March 1976, less than four years after the original facilities plan, the plant was not only designed but completed and in operation. The plant is consistently performing well within discharge standards. There was no cost over-run in the construction for the operation of the plant.

The same engineering firm prepared a preliminary engineering study for Canon City, Colorado, now known as the East Freemont County Plant. This somewhat larger plant, 8 mgd, was also recommended to be a secondary treatment plant. The preliminary engineering study was completed in August 1974. The project cost of the plant was $5 million. When informed by EPA that a new facility plan would have to be prepared, Canon City decided to join with Lincoln Park and East Canon City and pursue the federal grants assistance process. The facility plan application was submitted in January, 1976. Eight months later, the Step 1 application was approved. In June of 1977, the study was completed. The facility plan was not approved until June 1979 because of new requirements and review delays. In September 1979, EPA required that the Step 2 plans and specifications would have to be redone to reflect required changes in engineers' contracts. The Step 2 design has not yet started and the projected costs for the treatment plant have risen from $5 million to $12-15 million depending on how quickly construction can be started following completion of design. If Canon City had followed the lead of South Fort Collins, they probably would have a treatment plant operating and meeting the Colorado discharge standards today. They would not only be cleaning up their pollution, but also saving between $7 and 10 million of federal and local funds.


COMPARISON OF TIME REQUIREMENT
OF PROJECTS WITH AND WITHOUT
EPA GRANT FUNDS
EASTERN FREMONT CO. METRO S.S.D. (WITH EPA GRANT)
SOUTH FT. COLLINS SAN. DIST. (NO EPA GRANT)
ENGRG STUDY
CONFUSION OVER STUDY AREA & STEP I STUDY SCOPE
STEP I APPLICATION SUBMITTED
BEGIN STEP I
COMPLETE STEP I STUDY
STATE WQCC APPROVAL OF STEP I
EPA APPROVAL OF STEP I
EST. STEP II COMPLETION
EARLIEST POSSIBLE START-UP
JULY
MAR
OPERATION
YEAR

## VI. ACEC Recommendations

Consulting engineers like to believe that they are essentially pragmatic and functional in their solution of problems. We understand that any improvement may require concessions and re-examination of priorities. We believe that all of the recommendations contained in this testimony could be administratively implemented by the agency. However, if administrative changes cannot be effected for whatever reason, statutory revision may become necessary in order to streamline and provide the stimulus to EPA and the state to improve the pace of the program.

A. *A fixed time limit on approvals of grant applications and other decision points is necessary to reduce the administrative dead time in the program.* We suggest that 90 days should generally be adequate time for most decisions within EPA. This applies to states which have accepted EPA delegation agreements as well. In suggesting some time frame within which approval or disapproval must be forthcoming, we are not suggesting that the time period is re-established every time a document is sent back for a signature, or referred back for a land disposal study, or held up pending an audit, or any of a hundred other reasons. The time clock would stop until the signature, study or audit is completed, and pick up again from that point.

If a flat 90—day time frame is not acceptable, we suggest a sliding scale based on the size of the project, the projected cost or the flow of the proposed system. A 60-day time period should be adequate for decisions on small projects of less than $2 million or less than one mgd. Ninety days should be adequate for medium-sized projects of $2-12 million, one to five mgd. One hundred twenty days should be adequate for even large projects of over $12 million or larger flow.

It should be noted that when the states and EPA must make decisions, they make them. $1.3 billion was obligated in the last quarter of fiscal year 1979. Much of those funds were obligated in the last several weeks. In fact, EPA and the state of New York were able to work out a creative solution to the obligation of almost $400 million so that the state would not lose any of its fiscal year 1978 funds. This suggests that EPA and the states, when faced with tough deadlines, can act decisively.

To keep projects moving and to avoid the dead time that invariably results in this process with so may decision points, conditional approvals could be made to allow the process to continue. As an example, we would suggest that, where EPA agrees with the waste treatment system recommended in the facility plan, the Step 1 facility plan should be conditionally approved and the Step 2 application for plans and specifications be approved and allowed to proceed, even if non-water quality requirements such as archaeological, historical analysis, open space and recreational oportunities, or public participation plans, are not complete or satisfactory. Specific time limits can be imposed as part of the conditional approval on the completion of these other elements. There is no reason why EPA must have all the pieces of the puzzle in place before work on the project can continue.

b. *New regulations should be applied to projects only prospectively.* ACEC believes that unless required by statute, Congressional order or Executive order, regulations should not be retroactively applied to a wastewater treatment project. The one exception must be where there are substantial cost savings or environmental benefits. EPA views the Step 1 planning process as the most important step. Therefore, changes in regulations that primarily affect the Step 1 planning process are often applied as conditional to the receipt of Step 2 and even Step 3 funding. (See Costle letter to Senator Bellmon.)

This is particularly evident in the cases of AWT review. ACEC believes that overall, the cost impact of inflation is more significant than the cost of completion of an AWT plant if review is required in Step 3. The most serious question related to AWT is, of course, whether the water quality of the stream would be significantly improved by an AWT discharged standard. This can be determined only by a waste-load allocation study. We recommend that where a facility plan recommends AWT, that the Step 2 grant be awarded and the engineer be permitted to design a secondary treatment plant with the capability of adding an AWT while a waste load allocation study is performed.

The issue of retroactive regulations is especially significant when it relates to requirements which have no water quality benefit, such as citizen participation, archaeological and historical analysis, industrial cost recovery and minority business enterprise, among others. We cannot calculate the cost in construction inflation and untreated pollution which has resulted from projects delayed while these requirements were met.

C. *EPA should streamline the procurement regulations for all communities,* but most especially for communities under 25,000 population. In particular, EPA would utilize state and local procurement policies and cost principles in the procurement of consulting engineering services to eliminate substantial time lost in negotiating

and reviewing engineers' contracts. This provision has been endorsed not only by ACEC, but also by the Association of Metropolitan Sewerage Agencies (AMSA) and the Association of State and Interstate Water Pollution Control Administrators (ASWIPCA). EPA should not waste time in detailed reviews of contracts for engineering services under $100,000. The previously-mentioned Level-of-Effort Study, in which we are a participating society, should help to provide EPA with the guidelines necessary to implement this recommendation up to $100,000. However, we recommend the expansion to $250,000. This would cover 70 percent of all the design projects.

Large counties and cities have undertaken large construction projects and secured negotiated engineering contracts in the past. They have a considerable track record in the procurement of A-E services. EPA should recognize the procurement practices and cost principles of such localities without regard to dollar limit of the engineering contract and certify local communities experienced in engineering negotiations. We cannot reiterate too strongly that EPA, in the procurement of design services, should be focusing on the issues of quality and total cost, not on percentage of profit.

D. *With regard to small communities, we suggest that EPA reduce the complexity of Step 1 requirements.* Many of the requirements can be handled on a short-form basis. We note that this question was raised in the 1975 hearings as to whether or not there could be a short form for small communities. This recommendation has been endorsed by ASWIPCA as well.

We also recommend that EPA recognize and accept a short form environmental assessment for small communities and reevaluate the public participation requirements for such communities. Reliance on state and local notice and review requirements, which are often statutory or even constitutional should provide adequate opportunity for citizen participation. Local governments can make appropriate decisions in most states only after public hearings and public debate. Apathy cannot be legislated or regulated away. There should be more flexibility in the regulations to permit localities to respond to requirements based on their own needs and local government system.

In conclusion, we would like to reiterate ACEC's willingness to continue to work with EPA and this Subcommittee to streamline and improve the Construction Grants Program. Our membership serves on advisory panels in most federal regions to work out problems between local communities, states, the engineers and EPA. We have participated with EPA at all levels since the beginning of Public Law 92-500 and will continue to do so.

We appreciate the opportunity to testify and would be happy to respond to any questions.

Thank you very much.

APPENDIX

ACEC File #732.31

american consulting engineers council

1155 FIFTEENTH STREET, N.W., WASHINGTON, D.C. 20005 ☐ (202) 296-5390

September 14, 1979

MEMORANDUM

TO: File

FROM: Laurence D. Bory

SUBJECT: EPA Facility Plans (Step I) Survey

EPA has performed a survey of Step I (preliminary planning) projects which were awarded more than 18 months ago. Of these, 2,526 projects were classified in seven regions (all but VII, IX and X) by reason for delays. Translating the analysis to Operation PUMP terms, 45 percent of the projects were delayed at the state or regional level, or by retroactive regulations (added complexity to program in last 18 months). The following is a summary of that analysis:

1. Review Delays

   17 percent (429 projects) attributable to states and EPA regional offices.

2. Retroactive Regulations

   28 percent (702 projects) attributable to Congressional or EPA requirements which have changed in the last 18 months:

| | |
|---|---|
| Increased/reduced scope | 6 % (147) |
| I/I&SSES | 14.5% (366) |
| PRM 78-9 | 4.3% (108) |
| AWT/AST | 3.2% ( 81) |
| Total | 28 % (702) |

President GEORGE W. BARNES Topsham, Maine • Senior Vice President CALVIN E. LEVIS Lancaster, Pennsylvania
Vice Presidents CLIFFORD E. EVANSON Northbrook, Illinois • WILLIAM A. HERRMANN St. Louis, Missouri
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Executive Vice President LARRY N. SPILLER • Managing Director BRUCE E. VOGELSINGER

Memo to File
September 14, 1979
Page two

3. Grantee Problems

13 percent (347 projects) attributable to political or administrative problems at the local level:

| | |
|---|---|
| Inaction | 8 % (207) |
| Intermunicipal conflict | 3 % ( 83) |
| Public reaction | 2 % ( 57) |
| Total | 13 % (347) |

4. A-E Problems

19.3 percent (489 projects) (includes unresolved 11 percent) attributable to delays in completion by A-E firms:

| | |
|---|---|
| Stacking (vague catch-all category) | 11 % (279) |
| Additional information request | 3.3% ( 84) |
| Competence | 3 % ( 74) |
| Other | 2 % ( 52) |
| Total | 19.3% (489) |

5. Other

| | |
|---|---|
| Administrative (Step Is not completed before Step II and III awarded) | 7.5% (191) |
| Undefined | 9 % (231) |
| Insignificant (sum of very small categories in most classifications) app. | 6 % (137) |
| Total | 22.5% (559) |

| | | |
|---|---|---|
| GRAND TOTAL OF ALL | 100 % (2526) | (sum error) (due to ) (rounding ) |

CITY OF AUSTIN

Grant Number C-48-1241
Description: Govalle Wastewater Treatment Plant

| Action | Date | Comment |
|---|---|---|
| Submittal of Step 1 grant application | March 27, 1975 | |
| Step 1 grant award | June 16, 1975 | |
| Facility plan submittal | August 23, 1977 | |
| Facility plan approval | February 9, 1979 | 18 months required for facility plan review and resolution of review comments. |
| City begins procurement procedures for Step 2 | March 1979 | |
| Submittal of Step 2 grant application | August 3, 1979 | 5 months required for compliance with procurement regulations and contract negotiations. |

Summary

After 4 years and 6 months from submittal of the Step 1 grant application, Step 2 has still not begun. The 18 month delay in approval of the facility plan resulted from excessive review time and time required for modifications to accommodate new regulations.

Bernie W. Sadler, Mayor
Councilmen
Maurice Conerly, Mayor Pro Tem
Arthur J. Guidry
Joe James
Malcolm L. Clark
C. Fred Huber
Roy Bernard
George Dietrich, City Manager

# CITY of PORT ARTHUR

P. O. BOX 1089 • PORT ARTHUR, TEXAS 77640 • AREA CODE 713 983-3321

October 3, 1979

Consulting Engineers Council of Texas, Inc.
Suite 402
San Jacinto Building
Austin, Texas 78701

Re: Operation PUMP, Presentation by CEC-T, AGC & TML to Texas Congressional delegations

Gentlemen:

The Port Arthur City Council authorized this letter in response to the letter dated August 7, 1979, from Roy A. Lewis, Executive Director, to Mayor Bernie W. Sadler.

The City of Port Arthur supports the position that the time, effort and costs should be reduced relative to Public Law 92-500 and specifically approves: (1) a time limit for application review, (2) combined grants, (3) reduced procurement and administrative requirements under the Construction Grants Program, and (4) Prohibition of retroactive application of new regulations.

We are enclosing a Schematic Flow Diagram for the Construction Grants Process for your study, review and reference.

The City of Port Arthur is presently under Texas Department of Water Resources Amended Enforcement Order No. 75-41A and Judgement #E-103322 from the District Court (Judge Thomas A. Thomas) relating to the Attorney General's suit filed March 15, 1976, against the City. We are a coastal city in very flat land, with a high water table, poor soil conditions and very high annual rainfall; all of these factors contribute to a poor sewage collection and treatment system. The City feels by virtue of these facts that Port Arthur has one of the more serious problems in the State of Texas.

Our history with PL 92-500 is as follows:

1. Step One - The Plan
   A. Approved - June 1974
   B. Facility Plan Completed - September 1976
   C. Facility Plan Approved by State and sent to EPA - April 1977 (7 months)
   D. Facility Plan approved by EPA - October 1978 (18 months)

CDC-T
Page Two
October 3, 1979

2. Step Two - Design Phase
   A. Application for Grant by State and EPA submitted May 1978 to City

   B. Grant offer made to City by EPA September 1979 ( 16 months)

   C. Complete Design Phase.- December 1980

3. Step Three
   A. Completed Phase One - two (2) years
   B. Completed Phase Two - three (3) years

Estimated Completion Date - November 1985

Estimated total time - Eleven Years, Five months

We recall that Congress declared as goals and policy that provision in Section 101 of Title I and Paragraph "F": "It is the national policy that to the maximum extant possible the procedures utilized for implementation of this Act shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government."

We trust that these remarks and comments will be considered as constructive criticism of the Public Law 92-500 and will be used by the Congress to evaluate the history and success of this very important law.

Yours truly,

CITY OF PORT ARTHUR

Robert A. Bowers

Robert A. Bowers, P.E.
Director Public Services

Enclosure - as stated

RAB:ys

cc: Harold Loyd, TCB, Houston

## PROBLEMS WITH THE CLEAN WATER ACT

### HON. JAMES G. MARTIN

OF NORTH CAROLINA

IN THE HOUSE OF REPRESENTATIVES

*Tuesday, July 31, 1979*

● Mr. MARTIN. Mr. Speaker, local communities are growing increasingly frustrated in their attempts to clean up their streams and meet the standards we established in the Clean Water Act. Despite the availability of $6.3 billion in funds appropriated to the Environmental Protection Agency, local communities face increasing project delays, voluminous regulatory requirements and rapidly rising costs and cannot get EPA to approve their projects. It now takes an average of 8 to 10 years to build a municipal sewage treatment plant. Many localities estimate that as many as 3 years of their time is a result of Federal administrative delays and new Federal regulations. These new regulations often necessitate projects to be replanned, no matter how close a project is to construction.

Congress never intended the wholesale revisions which EPA has required of local pollution abatement projects. Many projects have literally been stopped dead in the water because of disagreements over regulatory interpretations among EPA, the local communities and the States. Meanwhile, the objective of the act, preventing pollution from entering the Nation's streets and rivers, is unrealized.

Delays from revised planning requirements by EPA have substantially increased wastewater treatments and construction costs as well. But, more importantly, they have required local governments to turn down new industrial opportunities with the jobs and incomes they produce because treatment plants are still in the planning and design stage 5 years or more after the community decided to seek Federal assistance to clean up their waters.

Recently, mayors and consulting engineers from North Carolina visited their congressional delegation in Washington to relate these problems to us. I call my colleagues' attention to an editorial in the Mooresville, N.C., "Tribune" of July 18, 1979, which describes the problems municipalities have in securing EPA assistance and meeting the standards of the Clean Water Act:

#### TRUTHS WITH ALARM

Is the Environmental Protection Agency going the way of the Occupational Safety and Health Administration?

Too many signs point in that direction, said worried local government leaders from Piedmont North Carolina in Washington last week, and members of the state's congressional delegation agreed. EPA, a growing body of evidence suggests, has lost sight of its objective and redoubled its efforts.

That's what neutered OSHA. A reasonable idea fell victim to the unchanging—apparently unchangable—term of bureaucracy. What started as a public service became a myopic obsession as its goal shifted from safety in the workplace to self-perpetuation. It became more intent on promoting reasons for its being than on doing what it was created to do.

In the end, of course, the people—through their government—lost control of OSHA, and they quickly became its victims rather than its beneficiaries. And Congress had to destroy OSHA in order to save it.

Mooresville Mayor Joe Knox and other regional municipal and county leaders feel EPA is following the same sorry path, and they want it reined in and defeated before it runs amuck and explodes. They told their representatives in Congress as much July 16 when they met with them to vent their frustrations over EPA mismanagement.

Specifically, Knox and the others are concerned about the agency's demands for improved waste treatment and its accompanying foot-dragging in providing the federal money law provides to assist with the improvements. More specifically, they want relief from EPA's glaring inability to cope with complexities of the Clean Water Act.

The Consulting Engineers Council, whose members work with counties and municipalities to meet EPA Clean Water Act demands, points out that 16 states have reached agreements under which they take over handling of EPA grants. North Carolina is not among them. There is no assurance state management is better than EPA management, because EPA policies that must be followed still change almost daily.

The Piedmont delegation's message was this: If local governments are to make any real headway in using federal money to follow the federal directive to clean up the environment and keep it clean, the malignant mass of bureaucratic red tape must be untangled. They can't put the salve on the sore until they get the cap off the tube.

A purely monetary reason to get EPA on the stick or out of business: for every $1 million tied up in delayed EPA projects there is a $20,000 monthly increase in project costs.

For Mooresville, an even more compelling cause for alarm: EPA has prohibited the town from connecting any new customers to its industrial waste treatment plant, even though it is not operating at capacity, and even though quality of its discharge is well within limits set forth in its original EPA permit. Unless the town and EPA can reach a workable understanding, industrial and commercial growth of the community could be stunted before the town's long-delayed $11 million waste treatment plant is ready for use, hopefully by 1982.

Mayor Knox was among five local government leaders who spoke before the congressional delegation that included Rep. Jim Martin of Mooresville and Rep. Bill Hefner of Concord. Knox's remarks write their own editorial:

#### LONG-RANGE PLANS

Several decades ago town officials and representatives of local industries cooperated in developing long-range plans to assure that Mooresville had adequate water and wastewater facilities. This positive planning effort continued, and in 1970 the need for updating the plans was recognized. The Town Board undertook this program, identified physical improvements that were necessary, and sought approval of state and federal agencies in an effort to implement construction and gain financial aid.

#### 201 STUDY

In early 1974 the town was directed to undertake a "201 Planning Study." Most items in which had been covered by work previously done. The Town Board was advised that the 201 Study was necessary if the town was to receive any benefit in the form of federal funds for construction of pollution abatement facilities. After some delay in funding the work, the 201 Planning Study finally commenced in late 1974.

In full compliance with then-current regulations, the 201 Study was completed and submitted to a "Joint EPA-State Review Committee" for approval in March 1978.

#### 201 REVISIONS

From May 1978 through May 1978 the 201 Study was subjected to constant revision, review, and reinterpretation of regulations by an EPA review committee. Finally, in May 1978 the town received word that the program proposed was adequate, and that the town should file application for funds to aid in the facility design. Incidentally, the revised 201 Plan, identical in concept to the March 1978 version but with totally new supporting data and format, was approved by EPA January 24, 1979.

#### AUTHORITY TO PROCEED

EPA through the state, had indicated that the town should apply in May 1978 for the step 2 design authority and funding assistance. Applications were submitted in May, and phone inquiries indicated that the application documents were apparently under review. However, on August 3, 1978 in response to a phone inquiry as to status, the town was advised that the application were lost. The town was directed to resubmit, and did on August 9, 1978. On August 17 the state staff indicated that all the documents were complete, and finally the state certified the application as adequate to EPA and sent it to the Atlanta Regional Office October 16.

Again in response to phone inquiries as to status, EPA representatives in Atlanta in November 1978 indicated there was no problem with the Step 2 grant application and advised that the town would receive an offer of a grant "at an early date." Nevertheless, only after weekly calls and through the assistance of the office of Congressman Jim Martin did the town finally receive the grant offer form February 26, 1979. The offer was reviewed and accepted by the Town Board in a meeting on March 5, and all requested supporting information was returned to EPA within several days thereafter.

#### SUMMARY STATUS

EPA still has not approved the engineering agreements and supporting data returned with the grant offer. Representatives in the Atlanta office indicate orally that there is no apparent problem with the submittal, but the written authorization or approval has not been received.

Here, eight years after start of the project, and having spent more than five years in dealings with the US Environmental Protection Agency, the town does not have the wastewater treatment facilities we initially sought.●

INCONSISTENT REQUIREMENTS (21F)

Between 1966 and 1974, five USEPA and State directed studies and reports called for a large regional sewerage treatment system in Ocean County. Those reports were followed by eight separate grant awards from the USEPA and the State amounting to $276 million to effectuate the regional plan. After award of these grants, the same agencies which called for a large system proceeded to enforce growth preventive land use programs, revised restrictions against septage systems and changed its regional water quality plan to conflict with its construction grant planning.

As a result of these changes and the complexity of the grant process, the plant is about to go into operation and will receive initial flows of only 0.5 mgd instead of the 24 mgd that the agencies had envisioned.

The following was described by Fellows, Reed & Weber as an "example of regulatory agency fiasco":

1. Original concept of regional system was the end product of a series of governmental decisions that culminated in a 1966 "Master Plan for Wastewater Management..." This study was funded and approved by a State agency.

2. The concept of this Regional Sewerage System, including its service area, was confirmed in the Federal Enforcement Action taken in 1967 by the USEPA's predecessor agency.

3. The requirements of the 1967 Master Plan and the 1967 Federal Enforcement Action were again confirmed and even expanded as a result of the USEPA "Water Quality Standards Setting/Revision Conference for the New Jersey Atlantic

Coastal Area that was conducted jointly by USEPA and NJDEP in June 1972. Said Conference further defined the size and make-up of the service area of the regional authority, the degree of treatment required and the effluent receiving waters.

4. In June 1973, the New Jersey Department of Environmental Protection issued the "Interim Plan for Wastewater Management/Water Pollution Control..." This plan, commonly referred to as the "Basin Plan," also emphasized that the concept for regional sewerage systems should transcend political boundaries and utilize topographical watersheds or drainage basins as the basis for constructing and operating regional systems. The service areas delineated in the Basin Plan are identical to that defined previously by USEPA and NJDEP. It is interesting to note that said Basin Plan was primarily prepared by the NJDEP Division of Water Resources. The Basin Plan was approved by the USEPA on September 6, 1973 and became the required Master Plan for sewerage facilities within the region.

5. The concept of the proposed regional sewerage system was extensively reviewed by the USEPA during the environmental impact evaluation as reported in the USEPA final report of October 1974 titled, "Environmental Impact Statement on a Wastewater Treatment Facility's Construction Grant for the Central Service Area..." This Environmental Impact Statement reconfirmed the original scope of the Authority's Central Service Area.

This Environmental Impact Statement extensively reviewed the Authority's population projections for the Central Service Area system. In fact, the USEPA retained the State of New Jersey Department of Community Affairs to develop

an independent population projection for the Central Service Area. This study confirmed the Authority's projections except for the townships where the State projections were significantly higher. As a result, this Authority was required to design its facilities to accommodate the higher State projections.

6. On February 21, 1974, the Authority received a "Step II" grant from the USEPA to prepare the final plans and specifications of the regional sewerage system for the Authority's entire Central Service Area in accordance with the requirements of the NJDEP/USEPA Basin Plan and the USEPA Environmental Impact Statement. Prior to the receipt of the grant, the grant application was certified for funding by NJDEP to the USEPA as is required by NJDEP/USEPA regulations. On April 28, 1975, the Authority was awarded the matching NJDEP Step II Grant for the preparation of the final plans and specifications.

7. Since 1973, in eight separate grant awards from NJDEP and the USEPA, this Authority received over $276 million in Federal and State grants to construct the required regional facilities.

With this background of planning based on Regulatory Agency requirements and blessed by Regulatory Agency approvals, it would appear that the Authority's Central Service Area would be a successful project. It is not!

The 24 mgd capacity treatment plant is scheduled to start up with approximately 0.5 mgd of sewage flow. The Authority is requesting a Water Diversion Permit to augment the flow with approximately 2 mgd of river water simply to be able to convey it to the plant and through the treatment process.

What happened? Basically, the Regulatory Agencies have reversed their original direction and put impossible road blocks hindering the effective completion of the project. Note that in the foregoing point 5, the New Jersey Department of Community Affairs developed an independent population projection that was higher than that projected by the Authority. They also stated the methodology of population projection utilized by the Authority was superior to any other study they had reviewed. However, the net effect of all of Governmental and Regulatory Agency actions since that time have delayed the population growth considerably and may even have permanently reduced the potential flow to the plant indefinitely. Following is a list of major impacts which do not even include many bureaucratic tie-ups which have delayed completion of facilities necessary to provide flow to the system:

A. Stringent management of the Wet Lands Act of 1980 which has resulted in virtually no building permits though the Act does not prohibit development but seeks to control it.

B. CAFRA Act of 1973 which has had a devastating impact on development in the drainage basin. Under this Act, some Step II funded interceptors have been challenged by environmental groups and construction has been held up indefinitely while permit appeals go on endlessly. Many developers who were awaiting the sewer interceptors have been economically hurt.

C. Development of Pineland protection areas which resulted in the Pineland Moratorium of 1979. Not only planned development is in question but also ongoing construction projects.

D. 208 planning that was completed well after Step II and many Step III projects and now conflicts with the original 201 grants. Both NJDEP and USEPA environmentalists are now trying to modify the approved 201 plans to comply with these late studies.

E. Reduction of funding to collection systems by new rules of eligibility and a reversal of the direction to eliminate point sources of pollution and allow septic systems to remain.

F. Re-evaluation of interceptor routing by the environmental branches of both NJDEP and USEPA after initial approval which has caused delay and sometime shortening of interceptors.

G. Delays in the State Historical Preservation Officer process.

H. Because of revision in Regulatory Agency funding policy, some collection systems do not have the economic capability of building a system and thus are not providing flow to the original system although capacity is reserved for them.

With all of the above listed as well as other smaller but significant impacts, the growth of the Central Service Area was reduced to a minimum, below the contemplation of the very Regulatory Agencies who had demanded a regional system to remedy the pollution potential of the planned growth of the time. The delays have hurt if not destroyed the economic feasibility of the development for which the conveyance and treatment system was built.

After the Impact Statement was written by USEPA and reviewed by every possible government agency involved, the Authority had every

reason to believe that their project including the contributing collection systems, would have clear sledding to be constructed as a complete system. Yet, the Federal and State governments funded a system which they are not willing to let the Authority complete to flow contributing areas and have severely restricted the planned growth that was the basis for the funding.

Example F

South Fulton County WPCP

The Georgia Environmental Protection Division (EPD) issued a NPDES discharge permit for the Morning Creek Water Pollution Control Plant in June 1975 which gave conditions to be met by July 1, 1977. Since the existing facilities could not meet these criteria, Fulton County initiated a facilities planning program.

In October 1976, the "Morning Creek Facilities Plan and Infiltration/Inflow Analysis" was submitted by Fulton County for review by Georgia EPD and EPA. The I/I Analysis was approved in March 1977 and comments were submitted on the facilities plan by Georgia EPD to EPA. In May 1977, a revised facilities plan recommending diversion of flows from the Morning Creek WPCP to the Camp Creek WPCP was submitted to EPD. A Step 2 grant application for design of the system was submitted in August 1977, and in October 1977, the facilities plan and grant application were certified to EPA. On February 7, 1978 EPA returned the grant application to Georgia EPD and requested further evaluations.

The requested evaluations were beyond the scope of the facilities planning guidelines applicable at the time of project initiation. The questions that were raised were related to preliminary design details of land application and diversion alternatives. Justification for not using land treatment is required in facilities planning according to EPA's Program Requirement Memorandum number 79-3 issued on November 15, 1978. However, this policy was applied retroactively to this project.

Fulton County applied for a grant amendment on April 12, 1978 to perform the additional evaluations. Approval came from EPA four months later. On February 1, 1979, approximately one year from the date in which EPA requested the additional evaluations, Fulton County resubmitted the revised facility plan to EPD. The plan was approved by EPD and was sent to EPA on March 1, 1979. Fulton County submitted a Step 2 (design) grant request on August 3, 1979.

The "Morning Creek Facility Plan" has not been approved by EPA as of this writing. The additional evaluations did not change the conclusions of the report, but delayed the project approximately 18 months.

## CITY OF ASHEBORO, NORTH CAROLINA

## EXPANSION OF WASTEWATER PLANT

## EPA PROJECT C 370291

Construction contracts on this project were approved by EPA and construction began in January, 1976. Discussion was held among the City, its engineer and EPA to the effect that installation of standby power generation would best be installed during Steps 2 and 3 of a subsequent project, as then the plant was scheduled to be expanded and additional treatment added. City and engineer understood this was agreeable and did not question EPA further, as agency had approved all construction contracts.

At close of project, it could not be approved due to lack of standby power generation. EPA required City to proceed with additional plans and specifications and secure additional bids.

Post bid data submitted to EPA in November, 1978 and approval received in February of 1979.

Several new regulations regarding EEO requirements, minority business utilization and others were made applicable to this later construction contract.

APPENDIX A

Examples of Specific Problems

The following is a list of example projects experiencing delays (whether by the Environmental Protection Agency, Pennsylvania Department of Environmental Resources, or the local agency) are a direct result of the uncertainties which result from changing and retroactive regulations, inadequate funding, planning concepts, etc., in the Construction Grants Program:

Beaver County - N. Sewickley Township and Municipal Authority, Township of Franklin, Step 2 application
Length of Delay - 4 1/2 years
Reason for Delay - Retrofitting facility planning requirements to the Sep 2 grant application, retrofitting PRM 78-9 requirements.
Estimated Cost of Delay - $8.1 million

Westmoreland County - Franklin Township Minicipal Sanitary Authority Step 1 application
Length of delay - 2 years
Reason for delay - Waiting for another community involved in the study to file its Step 1 application, delay by other community due to uncertainty about 201 and 208 planning requirements.
Estimated Cost of Delay - $5.3 million

Armstrong County - West Hills Area Water Pollution Control Authority Step 2 application
Length of Delay - 2 1/2 years
Reason for Delay - Retrofitting facility palnning requirements to a Step 2 application, retrofitting PRM 78-9 requirements, DER's uncertainty of how to interpret EPA regulations.
Estimated Cost of Delay -$7.6 million

Washington County - West Pike Run Township Step 1 Facility Plan
Length of Delay - 2 years
Reason for delay - DER's uncertainty about EPA regulations and DER/EPA uncertainty about how to handle an existing privately owned sewer system.
Estimated Cost of Delay - $0.6 million

Westmoreland County - Manor Borough Authority Step 3 application
Length of delay - 4 1/2 years
Reason for delay - Inadequate funding for Step 3 project.
Estimated Cost of delay - $0.7 million

Westmoreland County - North Irwin Borough Municipal Authority Step 3 application
Length of delay - 1 1/2 years
Reason for delay - inadequate funding for Step 3 project.
Estimated cost of delay - $0.4 million

CASE HISTORY

NORWOOD, MINNESOTA
WASTEWATER TREATMENT FACILITIES IMPROVEMENTS
(A project Funded by EPA)

| | | |
|---|---|---|
| 1963 | - | New wastewater treatment facilities serving the City of Norwood began operation |
| Late 1960's | - | Neighboring community of Young America recognized a water pollution problem caused by individual on-site septic systems |
| March 1972 | - | Norwood and Young America agreed that Norwood plant would be expanded to treat both Norwood and Young America wastewater |
| June 2, 1972 | - | Minnesota Pollution Control Agency (PCA) issued a construction permit to Young America for construction of a sanitary sewer system |
| June 15, 1972 | - | City of Norwood filed an application for EPA grant funds |
| October 1972 | - | PL 92-500 |
| December 11, 1972 | - | Preliminary engineering report submitted ty City Council |
| March 1973 | - | Regulatory agencies request I/I analysis be done in Norwood |
| May 1973 | - | Environmental Assessment public hearing held |
| July 27, 1973 | - | Step 1 grant offer to City of Norwood received from EPA |
| August 1973 | - | City executed a contract for I/I analysis work |
| October 1973 | - | Necessary sewer rehabilitation work completed at City cost of $50,000. No grant funds involved |
| November 1973 | - | Cities of Norwood and Young America hold a public hearing to discuss the issue of merging and becoming one community. Cities later decided not to merge |
| June 23, 1975 | - | I/I analysis report approved; Sewer System Evaluation Survey necessary |
| July 14, 1975 | - | Norwood accepted consultants proposal for doing required SSES work |

CASE HISTORY

BEMIDJI, MINNESOTA
WASTEWATER TREATMENT PROJECT

(A Project Funded by EPA)

| | | |
|---|---|---|
| January 1969 | - | City begins planning phase for upgrading wastewater treatment facilities |
| January 1972 | - | Preliminary engineering report recommending land application of wastewater submitted by City to Minnesota Pollution Control Agency (PCA) |
| June 2, 1971 | - | City filed grant application with EPA and PCA |
| September 5, 1972 | - | Supplemental preliminary report filed by City with PCA |
| April 1973 | - | PCA rejected land application plan |
| December 1973 | - | Preliminary report on mechanical treatment plant submitted to PCA |
| November 1976 | - | Preliminary engineering report on land application completed |
| March 1977 | - | EPA begins Environmental Impact Statement (EIS) |
| November 1977 | - | EIS delayed by EPA/PCA disagreement over content |
| April 1978 | - | EIS delayed over problem with access to study sites |
| January 1979 | - | EIS delayed; EPA decides more Step I engineering input needed |
| March 1979 | - | Request for Step 1 grant amendment submitted by City |
| June 1979 | - | Step 1 grant amendment approved by EPA |

OLIVIA, MINNESOTA - EPA PROJECT

Project - Wastewater Treatment Plant upgrade and expansion
Sewer Rehabilitation for I/I Reduction

Population - 4,000

Estimated Costs

| | |
|---|---|
| WWTP | $1,500,000 |
| Rehabilitation | 175,000 |
| | $1,675,000 |

General Information

The existing Olivia Wastewater Treatment Plant is an activated sludge type which was originally designed for simplified expansion. Growth in the community now requires that expansion. Infiltration and inflow into the collection system is also a problem. The project entered the 3-step process with a pre-application conference in August, 1975.

Project History

Application for Step 1 - Submitted September, 1975
Step 1 Grant offer ($28,500) - January, 1976
I/I Analysis completed - March, 1976
MPCA approval of I/I - June, 1976
SSES Amendment offer - October, 1976
Facilities Plan completed - April, 1978
1st Application for Step 2 - April, 1978
Final SSES Report - October, 1978
2nd application for Step 2 - January, 1979
MPCA approval of Facilities Plan - February, 1979
Revision of Step 2 Application to Step 2 + 3 - March, 1979
Step 2 + 3 Grant offer - ?

Comment

The MPCA has just informed us that it will now be necessary to re-submit the Olivia Step 2 +3 application (which would be the fourth submittal for design grant) with certain components of the facility eliminated. This is due to disagreement between EPA and MPCA regarding effluent standards which have been established since the inception of the project in 1975. The indication is that, eventually, the current MPCA standard will be relaxed to meet EPA criteria. Meanwhile, this project can proceed only on the basis of secondary treatment, although the final effluent standard will likely be more stringent. A future grant to add the removed facilities back into the project will, at that time, be necessary.

The project has been in the program for almost four years and the start of plan and specification preparation still appears to be a long way off.

**Example E**

Glennville: Case History of AWT/AST Review

The City of Glennville, through the consulting firm of Mayes, Sudderth, and Etheredge, Inc., has completed planning for an advanced wastewater treatment (AWT) facility which would employ bio-discs. On December 4, 1978, a Step 3 construction grant application for $1,455,665 (total project cost $1,940,887) was certified by the Georgia Environmental Protection Division (EPD) to the U.S. Environmental Protection Agency (EPA). However, on February 1, 1979 the AWT requirement was relaxed by EPD based on the results of two surveys performed on streams in the Glennville area during the summer of 1978. The new effluent limitations required only secondary treatment. Subsequently, a grant amendment for redesign was certified to EPA on July 9, 1979 for $8,812. Construction costs for the secondary treatment facility are estimated at $1,530,500 as of October 1979. Presently, plans and specifications are at EPD for review and approval.

On May 17, 1979, a memorandum from the EPA Technical Support Branch recommended that the project be further delayed until a field survey could be conducted to justify the wasteload allocation for secondary treatment levels. The original justification submitted by the State was based on field work done on similar streams in the Pembroke and Reidsville areas where only secondary treatment was required. These field studies concluded that any treatment beyond secondary would not significantly improve the surface water quality. The most pertinent issue in the memorandum was whether the receiving stream is a series of pools connected by stagnant channels. This assertion was based on an evaluation of the U.S.G.S. Quadrangle map. The issue was resolved by sending out EPD personnel to walk the stream below the existing effluent outfall on June 5, 1979. The assumptions of the stream being "pool/connected" were confirmed.

The project has been delayed over six months pending EPA concurrence. These delays caused by PRM 79-7, which requires review of AWT/AST projects, and EPA's failure to concur with the State's revised secondary treatment effluent limitations have increased the project cost due to inflation at a rate of $19,000 per month, according to the consultant's estimate. It is apparent that the requirements which were to have benefitted smaller communities have penalized the City of Glennville.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30308

OCT 12 1979

REF: 4W-NA

Honorable L. H. Fountain
House of Representatives
Washington, DC 20515

Dear Mr. Fountain:

Thank you for the opportunity to respond to the North Carolina Position Report as concerning EPA regulations. My letter to you dated August 21, 1979, indicated a response time of three (3) weeks. This was delayed longer than anticipated due to the extensive workload over the past two (2) months required to ensure obligation of funds prior to October 1, 1979. I'm happy to say this goal was accomplished and during these two (2) months $32,317,677.00 was obligated in North Carolina for a total of $78,177,370.00 for FY '79. This means that of the total of 467.6 million dollars made available through PL 92-500 to North Carolina, 378.5 million dollars has been obligated as of October 1, 1979.

In response to the report, there is no question that PL 92-500 is a very complex program to implement and inherent with any program with this level of complexity are potential delays and cost inefficiencies. In order to maintain a reading from the impacted parties in Region IV I have established a Construction Grants Advisory Committee with which I meet quarterly to listen to program issues and recommendations. To date I feel this has been very fruitful.

Upon review of the issues and recommendations as set forth in the North Carolina Position Report it is evident that a level of frustration exists. Some of it is justified, some of it is resistance to change, but much of it is due to the many tag-on programs which have been made a part of the process (such as MBE, innovative/alternative technology, archeological finds and public participation, to name a few) and the lack of available resources provided the Agency in carrying out its task. As you are probably aware, the projected manpower needs required to implement the PL 92-500 grants program are double that which have been provided. Relief has been pursued annually but denied. As an alternative, state delegation under 205(g) is being diligently pursued by EPA. This should remove one level of review and significantly expand the resources available to the program. However, States are looking at this differently in each instance with the primary issue being one of legislative support for positions and adequate salaries. Thus far in Region IV four (4) States, to include North Carolina, are in various stages of receiving delegation of the program. Any support you can lend to this effort is solicited at this time. Also, EPA has contracted with the Corps of Engineers to assist them with construction reviews in the field.

The recommendations as set forth in the report are primarily directed at reduction in delays. But the report in no way considers the impact on the final product without the checks and balances as presently required. It is my opinion that a greater degree of flexibility should be given the Regions as to whether or not new areas of the program should be applied to an ongoing project whether it be in Step I, II, or III. Each project is different and should not necessarily have to address all the same issues. However, there are definite areas that should be reevaluated in light of identification of significant program issues. It should be noted some of the items of reevaluation are directed towards the effort of reducing the cost to the public. An example of this is the Congressional requirement on the Administrator to personally evaluate projects where the need for high levels of treatment are determined to be needed and the incremental cost of the extra treatment above secondary is greater than one million dollars. This process has merit but has resulted in significant delays.

The primary purpose of the step process is to allow a greater number of projects to move ahead and avoid tying up a significant amount of dollars that would be allocated for construction scheduled two (2) to three (3) years in the future. As indicated in the report the facility planning process produces a very complete document which is the blue-print for the community. Therefore, it does not seem that it would enhance the program to provide for a combination Step I and II but rather the present combination Step II and III is more appropriate. The process as recommended would also give rise to an already difficult problem area relative to what is eligible in the way of reimbursable costs. These are the kind of things which take time but do not produce a product.

The area of retroactive application of regulations has been a concern and frustration for all involved in the program. It should be noted that greater empasis on elimination of retroactive application has been voiced by the Agency. However, as projects develop and concerns arise out of program implementation, measures are taken to try and circumvent a reoccurrence of those problems. It is not felt the recommendation as set forth would be acceptable as it would not allow realignment relative to major program concerns. However, as indicated earlier, if a greater degree of discretion as to project applicability were given the Regions, I believe process delays could be greatly reduced.

The recommendation presented in the section for Approval of Projects would not pose a real problem if there were adequate resources at the reviewing agencies to handle the workload. This may be realized through State delegation, but not in the immediate future. However, the approval process could be greatly enhanced if submission dates were spread out over the year. We have tried to encourage this over the years but have not had any real success in avoiding year end submissions.

There are other factors which impact the process. For instance, in 1977 North Carolina passed a five year bond referendum which provided State matching funds for wastewater projects for which Federal funds had been provided. The North Carolina Department of Environmental Management obligates these funds semiannually during the months of January and July. This results in the majority of Federal Construction Grants in North Carolina being applied for during December

and June. Presently, North Carolina is holding a public hearing this month to determine if the EMC should obligate these funds quarterly in lieu of seminannually. It will be helpful if this passes. However, it would be better if this process occurred on a monthly basis.

Procurement has been one of the most controversial areas of the program and very difficult to administer in a manner satisfactory to all parties. The indication about the nonutilization of Attachment "O" to OMB Circular A-102 is very carefully couched to reflect that local government has the capability to meet the requirements. It should be noted that Attachment "O" requires the grantor agency to certify grantee's procurement systems at least every two years and provides assistance to develop and maintain those systems. Our experience to date in this Region is that to our knowledge there is no acceptable procurement system in the some 2700 potential grantees.

The General Accounting Office report dated June 6, 1978, "Questions Continue As to Prices in Contracting for A/E Services under the EPA Construction Grants Program" and subsequent reports, was critical of EPA and recommended certain needed improvements.

The recommendation that the Congress mandate the cost principles is rather unrealistic but would perhaps favor EPA adopting more stringent requirements. Procedures have always been established by the Circulars which are subsequently adopted by the Agencies through regulations. EPA is currently studying Attachment "O" to determine what kind of regulations would be necessary. It is our opinion that EPA will ask OMB for an exception to the Circular and continue with current regulations that were approved by OMB.

In Chapter VI of the report, the reference in the second paragrpah to 501a does not apply in this case. The Agency was given an exemption to A-102 Attachment "O" to develop applicable procurement regulations.

We consider the first paragraph on page VI-2 as promoting the ethics of the engineering profession which are not enforced by anyone. Trust and reputation are perhaps what would be the most valuable assets; however, there must be some checks and balances in any system to ensure integrity. The grantees are basically incapable of establishing those checks and balances.

The reference to the regulations is exaggerated. The requirement of EPA is to review the procurement but not approve.

The issue on unallowable cost must be addressed by the Congress through revisions to the FPR or by OMB by not allowing EPA to have an exemption from the Circular.

The comment on page VI-3 relative to payment over 30 days is an unrealistic comment. The Engineer is under contract with the Grantee and the timing of payment by the Grantee is not under the control of EPA. The provisions of PL 92-

500 establishes the Federal participation to be on a reimbursement basis. EPA in my opinion does a fairly good job in processing timely payments. There is a problem getting monthly payment requests from the grantees as well as ensuring the grantee manages the project to preclude stop payments.

The goal of the Act, to clean up the waters of the nation, must be kept foremost. There is no question that valid administrative adjustments could be made without jeopardzing the integrity of the program and a thorough review of the administrative process could prove to be very fruitful.

I hope the above gives you a better prespective of the total picture. If I can assist you further on this matter, please feel free to call on me.

Sincerely,

John C. White

John C. White
Regional Administrator

PROJECT - EDGERTON, WISCONSIN - FACILITIES PLANNING

| DATE | ACTION |
|---|---|
| 9/2/76 | Step 1 Grant Application Transmitted to DNR. |
| 9/10/76 | Step 1 Grant Application Certified to EPA by DNR. |
| 9/30/76 | I/I Analysis Transmitted to DNR. |
| 10/26/76 | I/I Analysis Certified to EPA by DNR. |
| 12/7/76 | Step 1 Grant Offered by EPA. |
| 2/16/77 | Amendment No. 1 to Step 1 Grant to cover SSES Transmitted to DNR. |
| 2/23/77 | Amendment No. 1 to Step 1 Grant Certified to EPA by DNR. |
| 4/6/77 | Amendment No. 1 to Step 1 Grant Offered by EPA. |
| 12/30/77 | SSES Report Transmitted to DNR. |
| 3/31/78 | SSES Report Certified to EPA by DNR. |
| 4/19/78 | Amendment No. 2 to Step 1 Grant to Cover Archaeological Survey Transmitted to DNR. |
| 5/8/78 | Amendment No. 2 to Step 1 Grant Certified to EPA by DNR. |
| 6/23/78 | Amendment No. 2 to Step 1 Grant Offered by EPA. |
| 7/12/78 | Public Hearing Held on Environmental Assessment-Cost Effective Analysis Report. |
| 8/2/78 | Environmental Assessment-Cost Effective Analysis Report and Hearing Record Transmitted to DNR. |
| 10/17/78 | Step 2 Grant Application Transmitted to DNR. |
| 11/1/78 | Environmental Assessment-Cost Effective Analysis and Hearing Record Certified to EPA by DNR. |
| 11/30/78 | Step 2 Grant Application Certified to EPA by DNR. |
| 12/27/78 | EPA Letter Regarding Pre-award Audit of Engineering Agreement". |
| 2/26/79 to 3/2/79 | EPA Auditor in Engineers Office. |
| 3/22/79 to 3/23/79 | EPA Auditors in Engineers Office. |
| 5/9/79 | SSES Report Approved by EPA (13 Months Required for Approval). |

PROJECT - EDGERTON, WISCONSIN - FACILITIES PLANNING
Page 2

| | |
|---|---|
| 6/15/79 | EPA Verbally Requests Additional Information Regarding Whether Land Along Outfall Sewer Route is Wetland. (Note - This Comes Eight Months After EPA Received the Environmental Assessment - Cost Effective Analysis) |
| 6/18/79 | Additional Information Regarding Land Along Outfall Sewer Sent to EPA. |
| 7/6/79 | Still No Step 2 Grant. |

*The Engineer was verbally advised a number of times that the audit would not delay the Step 2 Grant award.

ELLISVILLE, MISSOURI
SEWAGE TREATMENT PLANT

The application of EPA of the same regulatory requirements to all grant requests and grant projects, regardless of the size of the community or the size of the project, the application of new regulations to projects or requests already in process and the lack of a specific period for review and approval are the greatest deterrents to completing small projects.

The most illustrative example of these conditions is in the experiences of the City of Ellisville, St. Louis County, Missouri. When the population reached 4,500 in 1972 and wastewater discharges exceeded the capability of the municipal treatment works, the City attempted to institute an improvement project for slightly less than $200,000 by the submission of an application of grant funds. All regulatory requirements from that point forward to the eventual completion of construction in 1978 (at a cost in excess of twice the original estimate) were the same as would have been required for a $2,000,000 project. A brief characterization of the events from 1972 to the present is as follows:

Project conception and grant application - 1972

Contract with consulting engineering firm executed - 1972

Completion of regional wastewater pollution control study recommended furtherance of proposed project - 1973

Revisions to EPA Regulations required revision to existing engineering contract to modify form of payment and incorporation of "C-1" provisions - 1973

Regulations required completion of Environmental Assessment, even though project was only an increase in size and capacity of an existing facility.

City required to adopt a resolution of assurances to EPA that they would connect to a regional system and abandon their treatment facility when and if a regional system, even though no specific plans for such a system were in existence and no decision on economic impact to the City was available.

Grant offer received by City - 1975.

Interpretation of regulations required the preparation and adoption of an industrial cost recovery ordinance, even though no industries which discharged other than rest-room wastes existed within the City.

Construction contracts awarded - 1976.

Revision to regulations and current interpretation necessitated preparation of Operations and Maintenance Manual on entire system, even though project involved modification to only a small portion of the system.

Virtually all requests for payment to compensate contractors for completed work experienced considerable delays.

At the virtual completion of construction, a change in regulations imposed two new and supplementary inspections by the U. S. Army Corps of Engineers personnel.

All construction completed - 1978; six years following initial application.

All persons due monies not yet paid because of dispute with EPA. Individual from Region VII office interprets newly revised regulations to prohibit payments in excess of 80 percent of the grant until the City bases the cost of service to all customers on the actual amount of water consumed, rather than the present charge for each class of customers, i.e. residential or others by types. Customers are provided water service by a private utility company and a public water supply district. The City has demonstrated that to adopt the system required by the EPA representative would increase the total cost of service; but the individual continues to refuse to authorize payment.

The interminable delays, the fluidity of the regulations to be applied and the ability of one or more EPA representatives to withhold payments until an individual interpretation of a regulation is satisfied, makes the current program excessively costly and unable to meet the goals of P.L. 92-500.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 10 1979

THE ADMINISTRATOR

Honorable Henry Bellmon
United States Senate
Washington, D. C. 20510

Dear Henry:

Thank you for your letter of August 23, 1979, requesting EPA's comments on a letter you received from Mr. George W. Barnes, President of the American Consulting Engineers Council. Mr. Barnes cites this Agency's commitment to exempt wastewater facility projects in Step 3 (construction) from any new program requirements at the time of their issuance. On behalf of the Council, he takes the position that projects in Step 1 (planning) and Step 2 (design) should be exempt as well. As his primary argument, Mr. Barnes holds that retroactive application of program requirements delays the preparation and processing of Step 1 and 2 projects to the detriment of the legislative goals and efficient management of the grants program and the interests of grantees.

The issue of retroactive requirements and their impact on the grants program has been frequently brought to our attention in recent months. I asked my staff to prepare a preliminary report which is enclosed for your information. The report describes EPA's rationale for retroactive requirements when such is the case; several major reasons for delays with Step 1 projects; and seven administrative actions meant to accelerate completion times for the engineering phases of facility construction.

I appreciate this opportunity to clarify this issue and to outline our actions to reduce the backlog of Step 1 projects. If you require any further information, please contact me or Henry L. Longest, Deputy Assistant Administrator for Water Program Operations.

Sincerely yours,

Douglas M. Costle

Retroactive Program Requirements and Step 1
Project Delays: Preliminary Report
Office of Water Program Operations

Federal, State and local interests all require a minimum level of quality in facility planning. Quality is the satisfactory assurance that the recommended alternative represents the most cost-effective means to meet the needs of municipalities in resolving present public health and water pollution problems. These needs should be met in a manner consistent with legitimate environmental concerns and the capability of users to pay the local share.

Periodically, EPA has issued additional program requirements to clarify and amplify the Agency's position on controversial topics, such as the eligibility of new collectors. Enactment of the Clean Water Act also necessitated revised regulations and issuance of additional program requirements. Only a small percentage of these requirements have been retroactive in application.

Considerable selectivity is exercised as to which requirements should apply to on-going projects and which should be implemented through a phasing-in process. If a facility plan is technically sound to begin with, "retroactivity" certainly does not entail beginning anew, and the plan should not suffer any undue delay. Additional program requirements often originate from problems with interpretation and practice in the field manifested in serious deficiencies in facility plans. To give an example, our program regulations issued in 1974 required the evaluation of land treatment and other alternative technologies in the facility planning process. We found, however, that plans prepared subsequently often concluded that alternative technologies were inappropriate without careful consideration. We, therefore, issued a policy in October, 1977, re-emphasizing the requirement. Congress was also concerned about the shortcomings of facility plans and included major provisions to promote the use of alternative technologies in the Clean Water Act of 1977.

The point should also be stressed that there have been many approvals of facility plans without significant slippages in their schedules. The adjustment period following passage of the Clean Water Act for facilities plans of high quality was a brief one. Ample evidence of the program's increasing momentum is seen in the 9 percent increase in FY 1979 obligations over earlier projections. Over 449 facility plans have been completed so far this fiscal year.

Primarily because of avoidable deficiencies in planning and design, re-examination of ongoing projects in the light of current program requirements can yield major benefits. For example:

1. South Pymatuning, PA The original project proposed sewering an entire community to convey wastewater to a regional facility, at a total cost of $4 million with estimated annual user charges ranging from $170 to $320 and many front foot assessments exceeding $70,000 each. The cost-effectiveness, financial, and alternative analyses were unsatisfactory. The proposed alternative was too expensive and did not address the actual needs of the community. EPA's recommendations included reducing the project's scope, revising design plans and specifications, and developing other local financing arrangements. As a result, the new project, in sewering only areas where problems existed, lowered annual charges to $177 per dwelling, eliminated the front foot assessment, and saved $2.2 million.

2. Lake Chatauqua, NY In response to a request from a citizen's group questioning a project already under partial construction, EPA re-examined the facility plan and design. It was determined that the plan failed to adequately evaluate other options besides conventional gravity sewers which in this situation were very costly. The consultant revised the plans to add pressure and vacuum sewers and shallow force mains in several areas and to delete some service areas altogether, at a total savings of $19 million. The lack of sufficient technical and cost analysis of alternative systems was the principal cause of this project's problem, as it has been with many others.

The overall problem of quality control in facility planning is an integral factor in the current large backlog of Step 1 projects. We readily agree that this situation is highly undesirable and have taken recent steps to determine on a project-by-project basis the major reasons for planning delays. We have now completed a classification of active Step 1 projects over 18 months old in 7 out of 10 regions. In addition to delays due to EPA Regional reviews and Headquarters requirements, we found that consulting firms are a significant part of the problem by their taking on more projects than they have staff to handle expeditiously; inaction in completing projects; and lack of familiarity with fundamental program requirements. For example, in Oklahoma, 63 percent of the Step 1 projects over 18 months old have been held up principally because of overloading and inaction on the part of consulting engineers.

We found also that delays at the grantee level were significant. Major causes included the failure to push projects, conflicts over service agreements, and problems with consultants. Another important delaying factor is the time required to complete infiltration/inflow analyses and sewer system evaluation surveys.

Supplementing the results of this analysis is an ongoing extensive quality review of completed facility plans. Again, preliminary indications are that many plans have serious deficiencies. Of the 69 reviewed to date, one-third or more have significant omissions and weaknesses in the following subject areas crucial to the quality of the final product:

1. Reserve Capacity: Excessive, well above the conveyance and/or treatment capacity required to meet needs.

2. Assessment of Environmental Effects: Incomplete in detail and coverage, both for the selected plan and alternatives.

3. Cost-Effectiveness Analysis: Incomplete breakdown of costs and insufficient discussion of alternatives.

4. Financial Analysis: Incomplete assessment of impacts on local community.

Several administrative actions are underway that should help reduce the backlog of projects:

1. Water Division Directors have been instructed to intensify follow-up and scheduling with firms having project backlogs, including meetings with the principals of those firms.

2. In those situations where overloading or uncooperativeness persists on the part of the consultant, we will recommend corrective steps to the grantee. We will also work with professional engineering organizations to press for improved performance from consultants.

3. The progress and problems of Step 1 and 2 projects will be monitored much more closely through improvements in the grants information data base and tracking procedures.

4. Our Step 1 analysis revealed that sewer system evaluation surveys often add 1-3 years to the completion of engineering work. We are examining means to expedite this part of the process.

5. We are holding numerous seminars on facility planning and alternative technologies across the country.

6. We are in the final stages of issuing a municipal enforcement strategy requiring that the permit program give greater emphasis to ensuring that municipalities without adequate treatment facilities utilize available grant funds expeditiously.

7. We are reviewing all our program guidance carefully to eliminate unnecessary and out-of-date requirements and consolidate new materials in a revised version of our "Handbook of Procedures."

Mr. JONES. My name is Charles Jones. I am chairman of the board of Jordan, Jones & Goulding of Atlanta, Ga. My firm has been engaged in wastewater treatment for 20 years. We are currently under contract for some 75 jobs in this field for various clients, 90 percent of whom are in the State of Georgia. Our current contracts total $10 million for projects in communities ranging in size from less than 1,000 to more than 2 million.

Today I am representing the American Consulting Engineers Council, which includes among its national membership 3,500 engineering firms, representing a total of 100,000 employees. Approximately 800 of those firms are actively engaged in planning and design of wastewater treatment systems for client local governments assisted by grants awarded by the EPA.

We estimate that our members engaged in water pollution control engineering are providing services on over 90 percent of all EPA assisted wastewater engineering projects in the United States.

I have three other consultants with me today that I would like to introduce to you. Mr. K. W. Kindle of Kindle, Stone & Associates of Longview, Tex., a firm doing business in both Texas and Arkansas, with approximately 26 clients involved in the program with contracts totaling $1.2 million.

Also Mr. John Loveland of O'Brien & Gere Engineers of Syracuse, N.Y., with 50 program related clients in 15 States, a staff of 310, and annual billings of $11 million.

And Mr. Paul Kuhn of Greeley & Hansen, Chicago, Ill., with 52 EPA assisted clients in 11 States and $71 million in contracts.

We are accompanied by Mr. Laurence Bory of the American Consulting Engineers Council staff.

We have prepared and presented to you a lengthy statement. I would like to hit the high spots and offer you an opportunity to ask us any questions that might come to your mind.

ACEC's concern about the operation, administration and implementation of the Federal Water Pollution Act, and its midcourse correction, the Clean Water Act of 1977, intensified soon after the signing into law of the Clean Water Act. During the last 2 years, concerns and problems with the implementation of the Clean Water Act, as expressed by ACEC members, have more than doubled, based on the number of written and verbal communications received by our headquarters in Washington. We have been afforded several opportunities to provide input to EPA via advisory panels and other review organizations on the progress of the program.

We believe that engineers have made a positive contribution to the agency and, likewise, the agency has been cooperative with engineers. However, during the last 2 years, our members and headquarters staff have become continually concerned that EPA

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may be as frustrated with the conduct of the program as are grantees, contractors, engineers, and others.

ACEC's concerns about the progress of the program include the slowdown in obligations, difficulty in negotiating contracts, State and agency indecisiveness, increasing numbers of regulations and so on. In short, the program is overregulated and undermanaged.

It should be remembered that many consulting engineering firms were designing wastewater and drinking water treatment facilities, sanitary landfills, storm sewers and other environmental engineering projects for communities, both small and large, long before the construction grants program was created as part of the Federal Water Pollution Control Act in 1972. The principle has always been the same—to develop a cost-effective solution to the client's particular needs.

In May 1979, these concerns and problems reached a point where the board of directors of ACEC felt they could no longer rely on the day-to-day contact between ACEC staff and EPA headquarters staff to try to resolve these issues. As a result, the council's environmental committee, chaired by Mr. Loveland, spent 2 days discussing the construction grants program and developing a compendium of both the problems and possible recommendations to speed up the program. From this list of over 40 items, several recommendations emerged. These recommendations, plus a long-range strategy became the basis of operation PUMP—Program to Untangle Municipal Projects.

As of October 25, local elected officials, contractors and engineers from over 20 States have visited their Senators and Congressmen either in Washington or in their home districts to discuss specific problems they have experienced with the EPA construction grants program.

EPA is not an agency with a single purpose or a uniform idea to carry it out. It is a regulatory agency operating under the mandate of seven major statutes passed by Congress since 1969, when the agency was created. The construction grants program is the one major assistance program providing funds and technical guidance to localities to solve a specific environmental control problem. Regulatory aspects of the agency and the specific regulatory responsibilities inherent in the Federal Water Pollution Control Act have expanded to adversely impact the implementation of the construction grants program. Taken cumulatively along with several thousand other requirements, they have a suffocating effect. Government personnel fear making a decision and grantees and engineers fear proceeding without agency approval. The result is a stalemate of inactivity.

We believe the most significant factors affecting the program's progress can be categorized into four areas. Briefly they are:

### A. DELAYS IN DECISIONMAKING.

The EPA construction grants process has so many built-in decision points at both the State and regional levels and, sometimes, even at the national level, that individual projects invariably will be delayed by time of review, requests for additional information, loss of files, exchanges of letters, and many other minor and even petty ministerial acts which may add up to years of administrative

delays and, in consequence, enormous increases in the cost of construction.

EPA originally estimated that facility plans should take an average of 18 months to complete from grant award to EPA approval. They are currently averaging over 36 months from grant award to plan approval. A facility plan, in EPA's view, is the most important part of the process and with this we agree.

Without facility plan approval, however, projects cannot progress into design (plans and specifications) and construction.

The city of Austin, Tex., submitted a step 1 grant application in March 1955 for the Govalle Wastewater Treatment Plant. The grant was awarded in June of the same year, and the facility plan was completed by the engineering firm in April 1977. However, the facility plan could not be approved for 18 months, until February 1979, because of administrative delays between the State of Texas and EPA region VI and the resolution of review comments. Four years and six months from the submittal of the step 1 grant application, step 2, the design of this treatment plant, has not commenced.

### B. OUR SECOND AREA OF CONCERN, CHANGING REGULATIONS APPLIED RETROACTIVELY

The history of the construction grants program has been one of continuously changing regulations, program requirements memoranda—PRM's—program guidance memoranda—PGM's—program operations memoranda—POM's—administrative policies, and other forms of informal guidance. EPA insists that informal guidance memos do not substantively change the program. But they do substantially slow down decisionmaking on pending project reviews until regional and State offices determine what the regulations mean.

Since 1973, 73 program review memos or progress guidance memos have been issued. At least 48 deal directly with the technical interpretation of the Clean Water Act, statutory requirements, cost allowability and management to State and regional EPA staff.

An example of this is the Morning Creek Water Pollution Control Plant in Fulton County, Ga. The plant was required in June 1975, to upgrade its discharge by July 1977. A facilities plan was begun which included infiltration/inflow analysis and diversion of part of the flow to a nearby plant. The State approved the plan and a design grant application in October 1977. EPA requested additional information in February 1978, regarding land treatment alternatives and awarded a grant amendment for additional evaluation in August 1978. In February 1979, the revised facility plan was resubmitted to the state and EPA. The evaluation of land treatment did not change the original facility plan's conclusions, but the retroactive application of the land treatment policy has delayed the project at least 18 months. The facility plan has not yet been approved. The plant is still not meeting the discharge standard and will not be upgraded to do so for at least several years. Meanwhile, the estimated costs of the project have increased significantly.

### C. OUR THIRD AREA OF CONCERN IS THE CONFLICTS RESULTING FROM DELEGATION TO THE STATES

Congress specifically required in the Federal Water Pollution Control Act and in the Clean Water Act Amendments of 1977 that the States should manage the construction grants program. Twenty-seven States have negotiated agreements with EPA. However, such agreements do not include authority to approve and guide local governments through the complex construction grants process. The regional offices of EPA are constantly "looking over the States' shoulders." This often causes many disagreements to the disadvantage of the local community attempting to comply with the discharge standards and complete their pollution control facilities at a reasonable cost.

Much of the conflict between the States and EPA has focused on water quality standards. The Clean Water Act specifically grants the States authority to require a higher level of treatment than required by Congress and EPA—section 510. Many of the States have utilized this authority to set stream standards and discharge permits to require advanced waste treatment (AWT) or advanced secondary treatment (AST). This has been further complicated by the Appropriation Committee's requirement that AWT or AST projects must be personally reviewed by the Administrator of EPA if they exceed $1 million in increased cost. The net result has been to delay hundreds of projects.

### D. OUR FOURTH AREA OF MAJOR CONCERN IS THE SPECIAL PROBLEMS OF SMALL COMMUNITIES IN RESPONDING TO THE REQUIREMENTS OF THE CONSTRUCTION GRANTS PROGRAM.

Small communities have been given special recognition in the 1977 amendments to the Federal Water Pollution Control Act. Similarly, in the EPA construction grant regulations issued in 1978, communities with populations under 25,000 are given special exemption from certain procurement and other regulations. However, the sum total of the regulatory impact on small communities is substantial.

In the 1975 hearings on the construction grants program conducted by this subcommittee, it was suggested that small communities should have fewer regulatory requirements to qualify for grant assistance. We agree with this assessment. The problem is still true today. Small communities comprise almost 80 percent of the total projects awarded by EPA. Forty-six percent of the grants awarded by EPA are to communities with populations of less than 3,500. Special requirements that do not have water quality benefits, such as public participation, archaeological and historical analysis and minority business enterprise among others, are particularly burdensome during the facility planning process.

An example is Edgerton, Wis., a small community with a population of 4,100. After submission of a step 1 application in early 1976, the grant was awarded in December of that year. Because of changes in regulations, a sewer system evaluation survey amendment to the grant was required and applied for in April 1977. The State approved the amendment in March 1978, and EPA approved the amendment 2 years after it was requested, in May 1979.

A second amendment, to perform an archaeological survey, was submitted in June 1978. An environmental assessment and cost-effectiveness analysis was approved by the State in November 1978. In the same month, the State, after completion of the step 1 plan, approved an application for step 2. During February and March, the engineering firm selected by the town to perform the design was evaluated in a preaward audit. In June 1979, more than 6 months after the submission of the facility plan, EPA requested additional step 1 information. At the current time, the facility plan has not been approved and the step 2 design grant has not been issued by EPA. Almost 3 years have passed since the original application was approved, and the town of Edgerton, Wis., is no closer to abating the pollution for its 4,100 residents.

An additional impact on the program itself for not granting relief to the small project is that, for instance, a $500,000 project requires essentially the same review time by EPA staffers as a $10, $20, $30 million project, thereby tying up valuable staff personnel that could be assigned to the more complicated projects if some relief could be given to the small communities.

The ultimate responsibility for both understanding and carrying out the regulations, especially in the small communities, lies with the consultant. This is partly due to our longstanding relationship with our clients over many years and the mutual trust that we have developed for each other. This mutual trust is damaged when the consultant must continually tell the client that EPA has changed the rules and it will cost more money to comply.

The innovative and alternative technology amendments to the 1977 Clean Water Act have been the subject of much controversy in the Construction Grants Program.

Qualifying for additional funds under the 85-percent bonus system has been extremely difficult. The definition of what is innovative and alternative has been poorly understood by the States and regions. Consulting engineers have found that what is innovative in one region may be alternative in another and conventional in a third.

In September of this year, EPA finalized a 300-page manual on innovative and alternative technology which described over 100 wastewater treatment processes. These processes and elements of different wastewater treatment cover the range of possibilities for innovative, alternative, and conventional technology. They also define the specific criteria in terms of cost and energy savings for qualifying conventional technology for the bonus. Because of its size and complexity, the manual has, so far, done little to speed up decisionmaking by either grantees, States or EPA regions.

Engineers will actively support innovative and alternative technology which leads to cost savings and energy recovery. The subcommittee's attention is drawn to a recent issue of Engineering News Record, October, 1979, which describes many projects aimed at precisely this purpose.

Consulting engineers like to believe that they are essentially pragmatic and functional in their solution of problems. We understand that any improvement may require concessions and reexamination of priorities. We believe that all of the recommendations

contained in this testimony could be administratively implemented by the agency.

First, we would like to recommend that a fixed time limit be required for approvals of grant applications and other project decision points. This is necessary to reduce the administrative dead time in the program. We suggest that 90 days should generally be adequate time for most decisions within EPA. This applies to States which have accepted EPA delegation agreements as well. In suggesting some time frame within which approval or disapproval must be forthcoming, we are not suggesting that the time period be reestablished every time a document is sent back for a signature, or referred back for a land disposal study, or held up pending an audit, or any of a hundred other reasons. The timeclock would stop until the signature, study, or audit is completed, and pick up again from that point.

If a flat 90-day time frame is not acceptable, we suggest a sliding scale based on the size of the project, the projected cost, or the flow of the proposed system.

It should be noted that when the States and EPA must make decisions, they make them. In the last quarter of fiscal year 1979, $1.3 billion was obligated. Much of those funds were obligated in the last several weeks. In fact, EPA and the State of New York were able to work out a creative solution to the obligations of almost $400 million so that the State would not lose any of its fiscal year 1978 funds. This suggests that EPA and the States, when faced with tough deadlines, can act decisively.

To keep projects moving and to avoid the dead time that invariably results in this process with so many decision points, conditional approvals could be made to allow the process to continue.

Our second recommendation, is that new regulations should be applied to projects only prospectively. ACEC believes that, unless required by statute, congressional order or Executive order, regulations should not be retroactively applied to a wastewater treatment project. The one exception must be where there are substantial cost savings or environmental benefits.

EPA should streamline the procurement regulations for all communities, but most especially for communities under 25,000 population. In particular, EPA should utilize State and local procurement policies and cost principales in the procurement of consulting engineering services to eliminate substantial time lost in negotiating and reviewing engineers contracts. This provision has been endorsed not only by ACEC, but also by the Association of Metropolitan Sewerage Agencies (ASMA) and the Association of State and Interstate Water Pollution Control Administrators (ASWIPCA). EPA should not waste time in detailed reviews of contracts for engineering services under $100,000.

Fourth and last, with regard to small communities, we suggest that EPA reduce the complexity of step 1 requirements.

We also recommend that EPA recognize and accept a short form environmental assessment for small communities and reevaluate the public participation requirements for such communities.

In conclusion, we would like to reiterate ACEC's willingness to continue to work with EPA and this subcommittee to streamline and improve the construction grants program. Our membership

serves on advisory panels in most Federal regions to work out problems between local communities, States, the engineers and EPA. We have participated with EPA at all levels since the beginning of Public Law 92-500 and will continue to do so.

We appreciate the opportunity to testify and would be happy to respond to any questions.

Thank you very much.

Mr. OBERSTAR. Thank you very much. I must say that over the years, we and this committee have found ACEC to be a very responsible organization and one that has contributed enormously to the water pollution program. You have always been constructive in your approach to treating the needs of the Nation's wastewater, and that is why we have asked you to come here and share with us some of your ideas. I think these are very constructive recommendations. I think we will want to give them further consideration.

I looked through your prepared statement and I would just like to explore momentarily something that sort of caught my attention, perhaps a plaintive note on your part in discussing the relationship of small communities with the AE firm. The poor A-E firm has to help them with grant applications. They do not have the staff. All that is true, but there is a bit of self-interest there, too. Let us be frank about it.

If you go in and prepare the application for the community, you kind of expect to get the job and often do. There is nothing wrong with that. It is quite proper. It does not pay a small town of 7,000 or 8,000 to have a big engineering staff for one project they may do in 40 years.

Also along with that, while there are problems with the program, I notice Mr. Bory's analysis indicated that grant problems and AE problems add up to about a third of the delays in this process. So there is a little bit—it kind of raised a question in my mind, what kind of things are the engineers suggesting that they should do to expedite their own work?

Mr. JONES. Let me pass that to Mr. Bory since he did the analysis.

Mr. BORY. The reference you are making is to the EPA chart that I am not sure was included in the statement. It is on the question of delays in preparing step 1 plans. This chart reviews 2,500 plans in seven regions. Of this total of 2,500 facilities, the regional agency staff did identify grantee delays and A-E delays as one of the significant areas.

I might note that the program complexities, and what we have called retroactive regulations, totals about the same amount as the identified A-E delays, and that the A-E delays were primarily in an area called stacking by EPA which is a rather undefined area. It apparently means that some firms accept too many step 1 plans.

We are not saying that there are not A-E firms that engage in this process. There are many small communities that have step 1 plans in the order of magnitude of $5,000, $10,000 and $20,000, very small studies. On the other hand, based on the total of these 2,500 studies, this particular item represents less than 10 percent of the delayed plans in these seven regions.

Mr. OBERSTAR. I do not want to belabor the point, I just thought it was something worth raising.

Those two bells indicate that we have a vote on the floor. Before we break I would like to recognize the gentleman from New Jersey who has given so many years devotion to this problem before coming to Congress, and since being here.

Mr. ROE. Mr. Chairman, I want to thank the distinguished witnesses for testifying, and I am sitting here reflecting in my mind that what we should do is abolish the EPA program, and I am not being facetious at all, because I think they are doing an abominable job.

They are costing the people of America billions of dollars, and not doing what they should be doing in the first place.

I hate to take that position, because as you know, I fought like mad, along with everybody else on this committee, to devise a piece of legislation that was crisp, to the point, would get the job done, and when you get bureaucracy into it, they're killing us.

I just spent some time with people in my district. They started out in their project in 1968. The estimated cost for three regional communities was $18 million. To date, there is not a shovel in the ground.

They have spent millions of dollars in preliminary work and so forth and so on. The estimated cost now is $54 million and now they are coming back wanting to redo the situation, wanting to put septic tanks in.

So in utter frustration, I could not help agree with you more. I think both of you have been unduly kind to the Agency, and I am not a combative type of person.

But it seems to me along the line someplace, somebody ought to be doing an analysis of what this program has cost the American people. I am not talking about what they have expended in dollars per se from the Government's point of view, but what it costs in delay, in inflation.

I will wager you it is 10 to 1 for every dollar that has been put into place for—that it is 10 times that in delays in pollution.

You mention in your testimony, if I may just conclude, Mr. Chairman, you mention in your testimony the fact that it is a government incapable of getting anything done.

When we labored on the public works bill, we put $6 billion of construction in place in 2 years time, and they said it could not be done. We put it into place because we had uniquely in that law that the Federal Government had to act, yea or nay, in 90 days, or the project was automatically approved.

But it was done.

I think the second point involved there is that on the short form, environmentally, the purpose of building the sewage plants in the first place is to cure the pollution. They're spending all of their time and throwing every block and everything they can conceive and perceive, to stop the program from going ahead.

You will pardon my frustration this morning, but I share it with you. I only would wish, Mr. Chairman, that we have a GAO report smack on the head of this Agency, because I do not think they are doing their job in the respects they should be doing it; it is falling apart, and we ought to get the American people those facts as I see it.

I think you could be doing something else, however, which you are not doing, in all due candor and kindness. You ought to be over the back of every single Congressman and Senator that represents your States and your district, and you ought to display--and we do not have the time this morning to go over indepth the horror cases that you have projected, but they are all there.

You projected one from Ocean County, N.J. That is a national disgrace. That ought to put somebody in jail, never mind the point of view of the problems, engineeringwise. And I would suggest, because I cannot come back, I have another matter very important that I have to take care of, that if everybody who is in the engineering field got on the backs of their Congress people, and come back and said, "We do not want any more of our tax dollars spent on this program unless it is straightened out," you would be surprised the support you would get on the floor of the House of Representatives.

Mr. ROYER. I will hold my questions. Are we coming back, Mr. Chairman.

Mr. OBERSTAR. We will resume at 1:30, and begin with the gentleman from California.

[Whereupon, at 12:10 p.m., the subcommittee recessed, to reconvene at 1:30 p.m. the same day.]

AFTERNOON SESSION

Mr. MINETA [presiding]. The subcommittee will please come to order, and I would like to ask Mr. Greenlund and Mr. Jones and Mr. Bory to come back to the table.

I apologize for not having been here for your presentation. This is one of the days in Congress when we have two subcommittees meeting, simultaneously, aviation and this subcommittee.

In going over your testimony, Mr. Greenlund, I note that you have been involved in projects in which the local community has proceeded without EPA grant assistance, and that the project will be finished 8 or 9 years sooner than it would have been if the community had gotten itself involved in the construction grants program.

Given that the intent of this program is to speed up the construction of treatment works, and to assist communities in paying for these projects, I find this statement overwhelming.

I wonder if you could elaborate on this?

Mr. GREENLUND. All right, Mr. Chairman. There are, as is covered in my written testimony, in Pennsylvania, certain programs which pinpoint when a community must begin to think about wastewater treatment.

It is an excellent program. It has been in existence two years. It requires an annual report to be prepared, forecasting what their needs are going to be, and in suburban growth area communities, where a pinpoint indicates that there are new facilities needed, and those groups are under pressure for development from developers, and for other purposes, they often find it expedient to move ahead for a combination of circumstances.

One, obviously, is the timeframe difference. The second is that the growth is really needed to just keep pace with inflation for operating existing facilities. I explained that in that particular

community that I am speaking of, that the growth that they sustained over the last 2 or 3 years brings in $60,000 a year in transfer taxes.

That money is used for general fund purposes in the township: fire, police, what have you, and without the treatment plants going in there, faced with a 2-mill tax increase just to stay even.

So there are a lot of pressures on communities, other than just the need for wastewater treatment to push them ahead, and with the new technology that is available, that I alluded to in my written testimony, coupled with the fact that we can design the thing according to what they need and not what somebody tells them they need, that we can use some—I do not like to use the word—innovative, because I think it is overused, but just in the process of bidding a project, instead of using the traditional process, where the contractor buys the equipment that is specified, and installs it, we have been bidding some of our projects lately where the manufacturer has a contract under separate contract with the community to furnish and install the equipment, and we find we can coordinate and cut construction time considerably, and make much more favorable payment terms available to the manufacturer directly than through a third party.

There are just a number of factors that bear on this whole situation, and anyone by itself makes it possible for a community to move ahead, but it is a combination of everything.

I hope that gives you an answer.

Mr. MINETA. The ones that you state in your testimony on page 4 and 5, the 4 projects which have proceeded without EPA grant funds, two you say involved FmHA loans and grant programs?

Mr. GREENLUND. Yes.

Mr. MINETA. Are those, as far as getting to the goal of what the EPA would require, under a federally assisted project, the same?

Mr. GREENLUND. We end up with the same type of treatment plant, the same solution to the community's problems, and we do it in less than half of the time, even with FmHA, and far less hassle, believe me.

I really believe that for the smaller communities, at least in my general area, that there probably has been more progress and more work done in the communities that have received treatment programs in the past few years than EPA programs.

Mr. MINETA. Are these communities under, let us say, 15,000 in population? What would be the size of these populations, or the size even of the projects?

Mr. GREENLUND. Well, in Pennsylvania right now, anything under 10,000 population equivalence is usually the cutoff point for FmHA, Farmers Home. They cannot handle anything over that.

The projects we are currently working on that have no Federal funding are of 40,000 of population totals. But most of them range below 20,000 population. I think that is where the biggest market is.

Mr. MINETA. Even with the expedited procedure of the step 2 and 3 grants being consolidated, you still find it faster tracking with the Farmers Home Administration?

Mr. GREENLUND. There is no question about that. It can even be faster if there are no Federal funds available.

Mr. MINETA. Mr. Jones, are you aware of any similar situations?

Mr. JONES. Yes, sir, page 36 of our testimony we have a graph comparing two different cities in Colorado that happen to have parallel projects designed at the same time by the same consultants. It was a 6½ year documented difference between the EPA and the non-EPA project.

One was slightly larger, the EPA project was a little bit larger design, but they were both essentially the same.

Mr. MINETA. In the case of Eastern Freemont, how many MGD's are involved in that plant?

Mr. BORY. As I recall, the Eastern Freemont plant was an eight MGD plant.

Mr. MINETA. South Fort Collins?

Mr. BORY. 1½ MGD. There is a factor of four in size between the two.

Mr. MINETA. Yet there is a 6¼ time difference between——

Mr. BORY. That is correct. As a matter of fact, the South Fort Collins plant had a higher degree of treatment. The design was more complex because of the addition of sand filters.

These are back end devices, primarily to improve the level of treatment. The plant, based on my discussions with the consulting engineering firm involved, has been consistently operating in a 10/10 or better treatment level.

Mr. MINETA. What was the construction cost on the South Fort Collins?

Mr. BORY. It was close to the estimated cost, about $1.5 million.

Mr. MINETA. And the Eastern Freemont?

Mr. BORY. Of course that is not in the construction phase yet. Their projected costs now for completion in 1982 will be $12 to $15 million; $7 to $10 million is the additional cost.

Mr. MINETA. Mr. Greenlund, how would your recommendation to base the availability grants on needs affect a project such as the non-Federal one which you mentioned?

Would such an approach help the community, or would it lose out, since it appears that they can afford to go ahead without Federal assistance?

Mr. GREENLUND. In the case of the community that I cite in my testimony, they probably would not be eligible if there were need considerations for any Federal funding: They do not need it, because they are going to be able to construct the facilities essentially at the current sewer rental levels, sewer rental levels by the growth that is anticipated as a result of the new facilities.

I think that is perhaps not an unhealthy situation. If you have got problem areas, and there are areas where sewer user charges are astronomical for one reason or another, more money should go to them. They are the ones that need the help, and yet the program is structured so that everybody has a so-called right to the fund, whether they need it or not.

Mr. MINETA. Mr. Jones, concern has been expressed by some members of the consulting engineering community that the Corps of Engineers, which has an agreement with the EPA to assist in the management of step 3 construction phase projects, is asserting too much influence on the program and is trying to take over from

the EPA, and that this is—or that this has caused certain problems in the program.

I am wondering if you would care to comment.

Mr. JONES. It has been our experience that the influence of the Corps varies from region to region and State to State. I think we have experienced different levels of involvements, citing specific examples in my own firm's case, the Corps made the bid bidability constructability review of the set of AWT drawings, and came out with several pages of questions, most of which were addressing EPA policies, and not the plans themselves. And our State agencies simply said, apply whatever you feel committed to, and disregard the rest.

I have never seen a water pollution control plant look like a dam.

We find from the inspectors that they're not to——

Mr. MINETA. Is it design phase? What is it that they get into?

Mr. JONES. They get into step 3, which is the construction phase. They have a review of the drawings themselves, not so much from a technical sanitary aspect, but what they call bidability and constructability, they review the plans and specifications, procedures, administration and other things, and then they do get involved in the inspection phase of the project itself.

Mr. MINETA. What about the inspection phase, is that a problem to the engineering community?

Mr. JONES. It has not been in our region. I might call on our colleagues from two different parts of the country who are here with us. They may have some additional—Mr. Kuhn from Chicago, or Mr. Jack Loveland from Syracuse.

Mr. LOVELAND. We have not found it a particular problem.

Mr. MINETA. Mr. Kuhn.

Mr. KUHN. I believe there was a problem in the State of Michigan with a Corps of Engineers inspector coming on the job and trying to insist that the responsibility for construction safety was different from what was required in the contract documents.

This caused quite a bit of conversation between the grantee, the engineer and the contractor. I think it has been resolved.

It did point out that the Corps people sometimes can come in a project with a different viewpoint than is being practiced in that area, which does cause some upset and some delays.

Mr. MINETA. Mr. Greenlund, have you had any experience in this area?

Mr. GREENLUND. We have had very little problem with the Corps of Engineers, and of course, on non-EPA projects, where the bulk of our effort is, we have no contact at all.

We would just as soon stay away from everybody that wants to regulate, let them regulate somebody else.

Mr. MINETA. Mr. Royer?

Mr. ROYER. Thank you very much, Mr. Chairman.

I, first of all, want to associate myself with the remarks of the gentleman from New Jersey, Mr. Roe. I thought his comments were right on target.

I want to be sure that it is on record that I feel strongly that some streamlining has to be done if this program is to get off dead center.

I also want to commend you gentlemen for your straightforward testimony. I think it certainly has given me an opportunity to have a clear picture of what I suspected, but now understand to be a fact at this particular point.

I would like to ask Mr. Jones a couple of questions if I may.

First of all, Mr. Greenlund during his testimony indicated that he felt that the local communities ought to have greater participation. I wonder, do you concur in that recommendation? He indicated that he felt that the Federal grant should be less, and that the local communities should have greater participation with the feeling that they would possibly do a better job, I assume.

Mr. JONES. I do not believe at this juncture, as long as the regulations are in place, that varying the amount of Federal funding is going to give the local government any more voice in what they do.

It might speed up the program a little bit. But in my honest opinion, I do not believe it would.

Mr. ROYER. The only thing it might possibly do, is to have them go on their own during the project, forego Federal funds and save money. It was suggested by one mayor we happened to have testimony from, that his community could save some $5 million by ignoring the Federal funds altogether, and going it alone.

Mr. JONES. There is no question that using total local dollars in lieu of some combination of EPA and local dollars will speed up the project. We have some large clients that have done just that, $10 million, $15 million projects that have gone ahead on their own within the last year, just to get the projects on board and operating, versus awaiting the 5 to 7 years to go through the procedures.

Mr. ROYER. I would also like to ask Mr. Jones another question. I understand that the State of Georgia has allowed the State to be more involved and I am wondering if you have had sufficient experience at this point to determine whether it has made any particular difference or not?

Mr. JONES. You refer to the delegation to the States?

Mr. ROYER. Yes, that is right.

Mr. JONES. Other than where there is some conflict in stream quality standards, we feel like the delegation program is working extremely well in the State of Georgia.

Mr. ROYER. One of your prepared testimony indicated that about 80 percent of the projects were smaller communities.

Was that in numbers or dollars?

Mr. JONES. Numbers of projects.

Mr. ROYER. How would it compare in dollars? Do you have any comparison?

Mr. BORY. Those projects actually consume less than 30 percent of the dollars.

Mr. ROYER. The 80 percent of projects consume less than 30 percent of the dollars?

Mr. BORY. That is right. There are 106 major metropolitan areas. Only two of those areas have achieved secondary treatment. I believe those are Chicago and Tampa-St. Petersburg.

The question of local participation is going to be particularly significant when those major municipalities come on line in the construction phase.

I am sure if you have had the mayors of those communities, which I guess you are going to have tomorrow, they would tell you that the costs of upgrading that are projected now, for instance, the cities of Philadelphia, New York, the city of Milwaukee, which is under court order, the city of Detroit, which is under court order, are so high that those cities would have a difficult time paying for these sewage treatment systems by themselves.

I think we would be regulating in Federal courts, which in some instances we are, if that were the case. The issue of small communities, as we said in our testimony, is that many of the regulatory steps of the process take almost as many State and Federal review man-hours despite the fact the dollar amounts are very small.

It may take just as many years to get $1 billion projects approved as a $20 million project.

Therefore, the administrative cost benefit in a larger project is much greater, because the same amount of time, review time, is necessary for a smaller project.

Mr ROYER. Would it make any sense to get into some kind of a straightforward block grant to these communities with a much modified criterion for qualifications and need versus what we appear to go through at the present time?

Mr. GREENLUND. I think that is certainly a possibility that could be considered. I think the end result, as I said, I think originally, what does it do to the individual user charge in an individual community?

If it tends to cut that down, then it is going to be workable.

Mr. ROYER. When I said, greatly modified criteria, I sincerely meant that; and I am wondering if it is something that we ought to take a look at.

I guess the one last question I have is: Do we have a similar situation, which I have heard in other subcommittee hearings wherein the direction of Congress has not been clearly established, or the administration of the bureaucracy has misinterpreted the intent? Do we need clearer congressional intent in this program, or have we bungled it?

Mr. JONES. I think the intent is clear. I think the vehicle or administrative procedure, the regulations themselves, conflict with each other.

It would just make it too awesome and too cumbersome to travel through.

Mr. ROYER. If I understand you correctly, then you are saying the original intent is clear, but it has not been monitored, so it has been carried out; is that correct?

Mr. JONES. Correct.

Mr. ROYER. Mr. Chairman, that is all the questions I have. I yield back the balance of my time.

Mr. CLEVELAND. We have got a vote, do we not?

Mr. MINETA. Yes; we do.

Do you want to wait?

Mr. CLEVELAND. Yes.

[A brief recess was taken.]

Mr. MINETA. Mr. Cleveland, I believe you were about to ask some questions.

Mr. CLEVELAND. Thank you, Mr. Chairman. I apologize for not having been here this morning. Ironically, I was at a meeting of the Select Committee on Committees, which handles, among other things, the conflict of scheduling problems.

Mr. MINETA. Great; reducing the number of committee assignments.

Mr. CLEVELAND. We have labored, but not produced.

Not having been here for the testimony of this distinguished panel, I do not want to ask them questions that may already have been asked, or ask them something that may be included in their written statement.

But I would like to ask the panel this question generally. Am I correct that your experience in the field indicates that there are still unseemly delays in implementing the clean water program, particularly the construction grant part of it?

Is that still the old, familiar tune that is coming through?

Mr. JONES. Yes.

Mr. GREENLUND. No question.

Mr. CLEVELAND. We have been hearing it on this committee a good number of years.

From your recent experiences do you attribute this—the stop-start-go and redtape—to the inability of the State and Federal and local government to get their act together; or do you attribute it to financing problems at the Federal level?

As you know, the Appropriations Committee has been drastically cutting appropriations—or both?

Mr. JONES. We feel like one of the primary contributors to the basic ones is the inability to get quick decisions, quick turnaround on reviews, inordinate time.

We have suggested in our recommendations that EPA consider 90-day limits to making a decision or review, and application after which it is approved.

Also, the retroactivity of a lot of regulations that continuously are issued makes a project that has essentially been completed have to go back to square one and start over to include the new regulations, that is a serious reason for delays in the process.

Mr. CLEVELAND. Has there been a delegation of authority to the States?

Mr. JONES. We found serious problems here. Occasionally there are some conflicts on water quality standards. Many States have set their own standards more stringent than EPA, and Congress decree. This they have the right to do, and occassionally we get into some conflict between that standard and a few other minor things.

Mr. CLEVELAND. I am talking about the delegation of the construction grant, the overseeing of the construction grant program.

Mr. JONES. It is moving along smoothly. Maybe the delegation is not total, and EPA still tends to look over the State's shoulder to be sure they are doing the job properly.

It is in its embryo stages.

Mr. CLEVELAND. You are saying the EPA is looking over the State's shoulder to see that they are doing the job properly?

Some of the information that I get is that the States and the people in the States know more about how to do the job properly than EPA.

Mr. GREENLUND. I do not think there is any question about it.

Mr. CLEVELAND. There is no question in my mind either. I just want to correct the gentleman when he says the EPA is looking over the State's shoulder to see that the job is done properly.

Mr. JONES. Administratively.

Mr. CLEVELAND. A lot of them do not know how to do the job.

Mr. JONES. I agree with the Congressman. I say that because it has to move from the State through the region for approval, that the regions still seem to be looking over the shoulder of the State people, competent though they may be, to be sure that the job is done properly.

Mr. CLEVELAND. Under these delegations, they're not meant to look over their shoulders much?

Mr. JONES. Correct.

Mr. MINETA. If the gentleman will yield?

In that State delegation process, there may be 20 or 30 items that can be delegated, and there may be only 11 of those 30 items that are actually delegated to a State. The other undelegated functions are still being looked at by the EPA. Even when they have delegated those 11 items, are they still checking on those 11 items as well, or just those portions that they have not delegated to a State?

Mr. GREENLUND. It is my experience that they are looking at everything to make sure that the State has done what they're supposed to according to what EPA says is the right way to do it.

In Pennsylvania it is a relatively new delegation. It is in its process stage of being shaken out. I do not see much difference.

Mr. MINETA. Thank you very much.

Mr. LOVELAND. To give you an example, in New York State we sent in two change orders late last month. One got approved at the State level, and one got approved at the EPA-level.

I am not sure today why one had to go to EPA and one did not. Two change orders, the same grant; a lot of confusion in this delegation.

Maybe it is just that it has started, and it is going to come along to life with eternal optimism, but it is anything but clearcut delegation yet.

Mr. CLEVELAND. How much of a problem has the financing gotten to be, in your experience?

Mr. JONES. Local financing?

Mr. CLEVELAND. No, I am talking about the Federal financing.

This program, when the Public Works and Transportation Committee wrote the program, it was meant to be $6 billion a year. Then it went down to $5 and then it went down to $4.5, and $4.2, and this year you are weighing in at $3.4.

Now, that may not have hit you yet but——

Mr. JONES. I think it is beginning to become a problem. More projects are further down the priority list.

I think for the program to operate smoothly and continuously, there must be a continuous and level funding of the program, because when you start a project, step 1 to step 3, you are talking

about 5 or 6 years apart for the States, and the region, to program their funds proportionately, they must be able to account more than 1 year at a time.

Mr. CLEVELAND. After you have done your planning or design work, and the city or town has made arrangements for their money up to that point, you're fully paid, are you not, for your work?

Mr. JONES. Yes, sir.

Mr. CLEVELAND. I have long felt that maybe one reform might be to have you people not fully paid. Because there are an awful lot of those situations where it is all planned and designed, and the cities and towns have put everything together, and then it is, wait 1 year, wait 2 years, wait 3 years, wait 4 years. That is probably not going to bother you, but it is there, and it is going to bother you. I am surprised that the construction people are not informed about that.

That is a serious problem in at least 10 or 15 States.

Right now, in the State of New Hampshire, I know firsthand where there are cities and towns that have been told they are going to have to wait 1 year or 2 years, sometimes 3 or 4 years.

One of the problems as I see it is that probably the reason you fellows are not interested in it, you get paid as you go. Otherwise, you would be much more upset about it.

Thank you, Mr. Chairman.

Mr. OBERSTAR [presiding]. The Chair recognizes the gentleman from Texas, the distinguished chairman of the Water Resources Subcommittee, who handles the subsequent legislation.

Mr. ROBERTS. Thank you, Mr. Chairman.

I just came in and I wanted to be with you. I have no questions.

Thank you, gentlemen, for your statements and your appearances.

Mr. OBERSTAR. The gentleman from Pennsylvania.

Mr. CLINGER. Thank you, Mr. Chairman.

Actually, I want to thank the panel for their excellent presentation this afternoon, laying out some of the problems that you have in dealing with this program. I have a few questions.

With regard to this question of the delegation, just following on to that, Mr. Jones, on page 15 of your statement, you talk about competence from the delegation, and the looking-over-the-shoulders aspects of it. One area you criticized was the failure to include authority to the State to approve and guide local governments through the complex process.

Is it your understanding that the States are prohibited from helping local governments through this process?

Mr. JONES. The delegation takes various phases. As the chairman just pointed out, there are probably 15 or 16 or more different functions, and all of these have not been delegated to the States, so they are operating with partial authority, so to speak, and it is difficult for them to totally guide the program that they are not totally responsible for. I guess that is, in essence, it.

Mr. BORY. If I could respond to that.

There is, of course, a residual amount of authority that EPA cannot delegate and this relates primarily to the approvals of grant applications. But as I understand the way EPA is interpreting the law, questions arise on the responsibility for guiding local govern-

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ments. In Virginia, the State Water Control Board will make a determination related to an interceptor sewer or discharge into a specific body of water, only to have the State decision questioned by the regional office of EPA.

The problem is that the predictability and the choice of alternatives in the facility planning process is sometimes extremely difficult. The local government doesn't know who, in fact, is right. You have the delegation agreement which says that basically the State is going to manage the program and make the decisions, and yet, once the decision appears to be made, then it can wait 6 or 8 months for EPA to decide at the regional level whether in fact that decision is correct. EPA has the whip hand because the approval of the grant can be tied to that decision.

Mr. CLINGER. So you are really not finding a guidance in terms of practical assistance?

Mr. BORY. No; we are not talking about technical assistance.

Mr. CLINGER. That is what the municipality is paying the consulting engineers for.

Mr. JONES. There is no prohibition for guidance by the State agency and in most cases they do just that.

Mr. KUHN. The Illinois Protection Agency has a program of application assistance for grantees. However, it does not solve all the problems. We have one plan in the State of Illinois, which has had the benefit of Illinois EPA guidance. The formal filing of the application took place in October 1977. It took the State until May 1978, to certify the application. This occurred right in the middle, gentlemen, of the delegation being passed from the United States-EPA to the State-EPA. So there may have been some confusion in that.

Then, in May, the application was certified to the regional office, and it took the regional office another 3 months to make the offer to the grantee—a total of 10 months. So it still did not seem to help the process.

Mr. CLINGER. It did not cut through any redtape basically?

Mr. Greenlund, in your testimony, you talked about the short time periods that you can build these projects under, when they are not under EPA.

If you are doing a project under FmHA, how many of those requirements over there are you subjected to?

Mr. GREENLUND. In one degree or another, at least a minimal look at almost every one of them. FmHA requires an environmental assessment. It requires looking at land application of sewage; it requires consideration of archeological and historical sites, commitments to factors such as energy and so forth. It is just that it is on a little more pragmatic level.

Mr. CLINGER. That is what I was getting at. So it is not the fact that you are not subjected to those laws as much as it is the way in which you are required to comply with those laws under EPA as opposed to FmHA?

Mr. GREENLUND. Right

In Pennsylvania, we do not—the Davis-Bacon Act does not apply to Farmers Home. But we have a prevailing wage act in Pennsylvania which is many times more stringent, so that must apply in all projects; so it has no effect in Pennsylvania.

But by and large we do, for Farmers Home projects, the same sort of analysis that we feel should be adequate for EPA but which obviously is not

Mr. CLINGER. What you are saying is that different Federal agencies then are applying these laws more stringently in some cases than in others?

Mr. GREENLUND. That is correct.

Mr. CLINGER. You mention, Mr. Greenlund, in your statement, the practical economic factors that arise from the length of time that it takes to perform the EPA grant permit.

Could you give the committee an idea of the magnitude of the cost increases that are directly attributable to this Federal grant process?

Mr. GREENLUND. In my written testimony, I have that one item, which I indicate is item 6, where I had developed at the beginning of this year, with the assistance of the Pennsylvania DER, a look at a comparison of EPA funding versus other methods of funding. When you consider 12 percent annual inflation in the construction industry, and of course that compounds itself as you go from year to year—I put together a series of curves to show the intersecting points where, if you were eligible for Farmers Home Administration programs, at a certain year, those curves would intersect and if you were required to wait for EPA funding beyond that point, you were actually going to spend more dollars on a local share basis. This is a local share basis, then, if you proceeded with the Farmers Home Administration and you can construct the same curves; and I think I did for non-Federal funding programs.

Now, I think there are a number of factors that alter what I have done, at least revised; because the EPA time frame then did not include all of the things that have come out since January of 1979.

Minority business enterprise, stringent publication requirements, and this new application technique. I can see that on a 20,000-population equivalent or under communities adding at least 6 months to the time frame and perhaps $8,000 to $10,000 in extra engineering fees to research something that, at least in our area of the country, having done it so many times, is pretty difficult to justify. It is a waste of money.

But under the EPA program, we seem to be collecting all kinds of fees for wastes of time. I do not know whether that is good or bad. It is really not good for us because we cannot—it is one of the fundamental factors; I cannot afford to have many EPA projects in my pipeline because I simply cannot make a realistic cash-flow forecast for my business because of the delays, the retroactivity, and so forth.

I have projects of 3 and 4 years' duration where I religiously forecast based that we have everything in EPA; that our money is going to start to flow from this particular project. Three years later, I am still thinking that I have got everything in and it is going to flow, and it never flows.

Mr. CLINGER. Let us talk about this retroactivity problem a little bit.

I gather that you are recommending that the regulations not be made retroactive once a project is underway?

Mr. GREENLUND. I think that has got to be. Anything that is at a certain point, you know, has got to go.

Mr. CLINGER. But to your knowledge, has the fact that the regulations that have been retroactive, significantly altered the scope of waste water treatment projects?

Mr. GREENLUND. Yes. I think in some of my individual instances, at the point where the subject of what I call social planning, the population growth projections which are, at least in our State, overseen by the regional planning commissions, will essentially have a veto power over projects. I cite in my written testimony the example of this, township project. We have a current one that we have been trying for 3 years to get a step 1 grant application in, let alone approved. This is a situation where the regional planning commission for the tricounty area, Delaware, New Jersey, and Pennsylvania, published a couple of years ago a set of population forecast data. They were very explicit in their publication that any project that came before them for review, that deviated more than plus or minus 3 percent from those projections would be rejected.

We had a small problem because their projection for 1980 had already in 1974 been exceeded by special consensus which had been repeated in subsequent years and with the approved development plans that had been before the local governing body and the local planning commission and had been issued permits to proceed, building permit situations, was fairly simple to forecast; but by 1980, we would exceed in population what the regional planning commission said would be available for 1995. They said, well, we recognize that fact; but unfortunately we have a quota and we cannot do a blessed thing about it. So there a project sits because we cannot get through that mess. That is so typical of so many aspects of the project.

It is not population in this area; it is something that was made retroactive.

We have one right now in this minority business enterprise that came out in July. This is one that the State certified down to EPA in January of 1978. Every time we thought we had everything in, something new would come out. All right. The minority business enterprise came out in July. We had the step 3 grant offer, the telegrams, the whole bit, and we were ready to advertise it, got to hold up now, we have to get our MBE program approved. This is now almost November and it is still trying to get through the States and has not even gotten to EPA.

Mr. CLINGER. Well, now, in 1977, the result of some of the problems that have been brought to the attention of the committee, there were some changes made in the law. I am questioning whether we made things better or worse as a result of our efforts in 1977 and, following on that, I am beginning to wonder if we tinker with this thing in 1979, we may make it worse yet. I am getting a little apprehensive about the possibility of making this function properly under any set of circumstances.

Mr. GREENLUND. I think I address in my testimony that one alternative is to do not much of anything with the program and in that case, I think it will continue to serve a number of areas, particularly the larger communities, who probably have more of a need, you know, big cities. For the rest of it, as I say, we have got

the alternative means of going without EPA now in many circumstances. I think it is just going to increase the number of communities that can do that and maybe that is a benefit, you know.

If you do not have to worry about everything in the world and can concentrate on a smaller group, maybe you can do a better job with a smaller group.

Mr. CLINGER. I guess that is it, Mr. Chairman.

Mr. OBERSTAR. We are going to have to vote here in just a few minutes. I would like to make one inquiry with respect to the suggestion of specific time frames for approving all projects. The first suggestion was 90 days would be sufficient to clear these projects or graduated time frames, depending on the size of the project. Are we possibly building in, through this type of approach putting in law, an additional element of inflexibility that might come back later to haunt us——

Mr. JONES. We stated at the outset of our recommendations that it all can be done administratively; that is our plea.

In the absence of the administrative change to make that necessary, I think the delays are in fact that one single most contributing factor to the slowdown in the program, the hesitancy to make a decision, for whatever reason, not understanding the new regulations, having heard a new regulation was coming down next week, maybe having as priority, set properly or whatever, as well as the retroactivity of regulations that have come down the pike. That is basically a problem of step 1, the planning phase, the monster that seems to take years instead of months.

But I agree with you, a fixed law may be counterproductive.

Mr. OBERSTAR. You think it would be better to accomplish that objective administratively rather than to write it into law?

Mr. JONES. Yes, sir.

Mr. OBERSTAR. It seems this week we are going to be proceeding on the House floor on a fast track bill for energy projects. We are going to try to put some time constraints in the building of new energy development projects. Well, the concept, if sound there, should be sound in the water pollution field as well, so that EPA and State officials can try to process these within a specified amount of time.

I have a few other questions that I would like to ask after this vote. We will recess and come back in 10 to 12 minutes.

[Brief recess.]

Mr. OBERSTAR. The subcommittee will resume.

I would like to inquire whether any of you have been involved, in the course of your engineering work, in the design of highways—if you are familiar with the Federal aid to highways program?

In the Federal aid to highways program, of course, there is something like $5 to $6 billion a year in Federal funds with State matching which brings it to a $9 or $10 billion a year program. It is the largest Federal construction program. We do not have in the Federal aid to highways program the kind of detailed review of every penny authorized to be spent by each State highway department as we have in the EPA program. The Federal aid to highways program is working very well. It did not work quite so well about 20 years ago when this subcommittee was initiated, 1959. There were very—there were gross irregularities in the Federal aid high-

ways program, which was the reason this subcommittee was established.

As a result of the hearings this subcommittee conducted, there were a number of convictions and near convictions, of persons involved in that program. That program operates in such a high level of responsibility that today when we bring the multimillion-dollar Federal aid to highways program to the floor of the House, the question is whether we ought to spend some of that money for mass transit of highways, build new highways, or rehabilitate new ones.

The essential operation of that program functions without question any longer, because of the internal audit review conducted by the Federal aid to highways administrator, the staff, and by the State highways departments themselves, They have organized their operation in a very orderly and systematic way.

It seems to me that we ought to be able to do the same thing with the water pollution control program, which is probably the second largest construction program of the Federal Government outside of the military.

If you give a little thought to that, I think it is very much in line with what you are suggesting here in part C of your four-part recommendations for this committee. It just seems each time we have a Federal program we seem to reinvent the wheel. It is an old, tired cliche, but that is really what it is that we are doing here.

I think there is a proven effective procedure and we should use it.

Finally, I do like your suggestion about there being a short form for small communities. That suggestion is eminently reasonable.

The Chair recognizes the gentleman from Minnesota.

Mr. STANGELAND. I have no questions because I, too, did not hear the testimony and do not want to be repetitious as far as the questions asked. But we met not too long ago, as the chairman knows, with the consulting engineers from Minnesota, and it is apparent that the problem is nationwide.

I think the recommendations—and I just got to glance through some of yours, Mr. Greenlund—are similar to the recommendations that those gentlemen made. It is really refreshing to hear somebody who is in a position to perhaps make money or at least have a larger volume of business, saying we do not want all that business; cut it back, streamline it.

I have some particular problems in my congressional district at the present time. I guess I would ask one question as to how you gentlemen function and how the program functions with the State program. I missed that because it seems like in Minnesota we have an excellent pollution control program on the State level.

But there apparently is not communication at all times with EPA and the PCA.

When one is not throwing a logjam in front of a project, the other one is. When one gets on track, the other one is off track. At least in this one instance, I have a sewage treatment plant that needs construction, has needed it for 10 years. It is at the mouth or the headwaters of the Mississippi River by a city of 15,000, which affects one of the greatest rivers and chain of lakes. For 10 years,

the drawback or the holdback is Federal and State pollution control agencies who are charged with maintaining or cleaning up the waters of the country.

Here we have clean water. We want to retain it and we have a sewage disposal system that has been condemned for 10 years, running 100 percent capacity that could break down at any time.

I am wondering how you see the two. From some of the testimony, I understand there is a good tracking between State and Federal agencies, and I am wondering if that is true in all instances, to your knowledge.

Mr. JONES. It really varies from project to project, almost from project manager to project manager within the agencies as much as anything else.

I think while in the spirit we commend the delegation of authority to the States, it must be a total delegation of authority and not a partial. I think the problems that we see and the conflicts that we see arise between the States is when they just have partial authority and are a little bit hesitant to make decisions that they might otherwise make more freely.

There may be some States that have more difficulties than others with their particular region, but I think it is more a project-by-project basis than it is geographical problem.

Mr. STANGELAND. Let me ask this, then:

Is there the expertise available in your estimation on either the State level or from the Federal EPA to set some general guidelines and allow the States to determine what is feasible in a waste water treatment facility and what is not?

I will give you an example of what we had up there.

At one time, we were looking at rapid percolation. I do not know if that is the right terminology. But I think you gentlemen know what I mean. It was determined by borings and ground tests that rapid percolation would not work in this one particular area. They have now come back with a proposal to put two lagoons and a sprinkler irrigation system, which is totally different than rapid percolation. The local or the State PCA turned down the lagoon and irrigation system in that particular area based on the criteria that rejected the rapid percolation.

So, I am questioning if there is expertise enough at the State level to really do the job right. Of course, I always question if there is expertise at the Federal level, because we have had problems out of regional offices of EPA in the same kind of situation.

Do we have the ability in the State to have them run the program by the guidelines set down by the Federal EPA so that we do not have that conflict, that tugging and pulling?

Mr. GREENLUND. My comment to that would simply be that long before 92-500, the States by and large were very efficiently doing exactly that situation and it was not until 92-500 that the problems began to surface. We have gone through in Pennsylvania, as consulting engineers, some problems with State DER, but by and large, I find now that the level of technical expertise is probably greater at the State level, in our particular State. I do not think there is any question about that.

I would go much further than my colleagues being a small, independent consulting engineer; I just do not see how the program

can be efficiently operated when the goals and the restrictions are set by an agency that is located so far from the individual problem and the thing that is always overlooked is the fact that each one of these problems is an individual problem.

You talk about percolation, land application, certain areas that is a good solution; in other areas is not. Yet, EPA does not recognize essentially in their regulations that there really is a difference in different areas between the way things should be done. You can build a waste treatment plant in the south, but you cannot build it in the north because we have icing conditions. Yet, we have national goals and policies on land applications, spray irrigation. I can see a winter that we had a couple of years ago where we had 3 solid weeks of below zero. That stuff would be up there frozen for 3 weeks and, boom, all of it would come down at once. Let the local people who know what the problem is, you know, determine what has to be done and let them set their own rules and regulations. They did it before EPA came along.

Mr. LOVELAND. Could I add one thing?

This program is being delegated to the States but the projects are not coming down for the States to administer as the States see how they should be administered in their areas. The whole of the bureaucratic regulations are coming down with the delegation agreement.

All you have got is a function of who is checking off what function you have met or have not met. You are not getting rid of the regulations; you are just getting rid of who is checking off to make sure that they have all been met.

Mr. STANGELAND. I have no other questions, Mr. Chairman.

Thank you.

Mr. CLINGER. Mr. Chairman, it just occurred to me while I was listening to the testimony, you talked about dealing with the FmHA. I am wondering if any of you had any experience of doing a project under the farmers program. I gather the time frame we are speaking about there is about a third of EPA——

Mr. JONES. Or less.

Mr. CLINGER. Because I had something to do with the administration of that program. We were mandated to do that on a very accelerated time frame, so that the project had to be reviewed and approved. The way it was done basically was by certification, that is, say the applicant certified that they met archaeological and historical preservation requirements, because there was simply not enough time on the part of the agency to audit, review, and monitor the thing so carefully. So everything was done by certification.

I take it under EPA that that is not the case. There is in-depth checking by the agency. Is this then one of the major reasons for the delay? Is there any difference in the quality of the wastewater treatment plant built under FmHA than under EPA?

Mr. GREENLUND. Probably in many cases it could be better and more efficient.

Mr. CLINGER. Could you see any reasons why a similar procedure could not be adopted, certification basis, with the seal of the consulting engineers?

Mr. GREENLUND. That would remove tremendously some of the time frame problems, I would think.

Mr. LOVELAND. We would enthusiastically support it.

Mr. CLINGER. It seems to me that that program worked quite well. We did get a lot of stuff built in a relatively short period of time. I have not really felt that it was egregious misuse of the public funds under the procedures that were adopted in that instance.

I would think that some sort—the same sort of procedure could be adopted here.

Mr. JONES. The main thrust of our recommendations, Mr. Clinger, the time limits, the acceleration of some of the reviews and certifications, not to stop the whole process until you get one more certificate.

Mr. CLINGER. Which is what now happens. You are brought to a grinding halt.

Mr. JONES. One of our biggest delays is not in the project review itself, but simply in the application procedures. We have to submit grant applications for two or three different times during the step 1 of the planning phase, again for the step 2, and again for the step 3. Just the review of the application itself, nothing to do with the project details, takes 3 to 6 months normally. It sometimes takes 2 years, and that is the sort of time limit that we are saying we must restrict to something reasonable so that the process can go on.

Mr. CLINGER. Thank you, Mr. Chairman.

Mr. OBERSTAR. Before I let you folks depart, just on a straight engineering basis, we are getting all these Federal laws and executive orders and so on exemplified in this sheet that the staff has prepared for the committee.

What should be the total engineering time frame for design, for doing everything up to actually getting a shovel in the ground, and get it built? Forget that you have to comply with archaeological and historical preservation, and endangered species, just the engineering work itself, nothing mystified about designing a plant, what time frame for a town, small project, 80 percent of the project, not 80 percent of the dollars, but 80 percent of the project, how long a period of time should it take just to do that engineering work?

Mr. GREENLUND. I will give you an answer and cite an example.

This one area that we have for a 4 million gallon sewage plant, we finished the preliminary studies in May. I have got a contract with the community that says that I have to turn the finished plans and specifications into them by March 1, and we expect review by the State regulatory agencies to be finished so that by May we will be in a position to advertise. So there is 1 year from the date I started to put together my comprehensive report for 4 million gallon a day wastewater treatment plant, and I fully expect it to be in construction, if not within the year, within 13 to 14 months, and this particular type process, I feel that it is constructable within 12 to 14 months, and I think I cited in my oral testimony that we are looking just a little over 2 years from the date that they said we are thinking about it to the date we are going to operate it. It can be done.

Mr. OBERSTAR. So really a year is what it takes in an engineering time frame, is that what you are saying?

Mr. GREENLUND. Well, you cannot generalize that that would be applicable to a majority of projects. It is the individual project that has its own requirements that have to be met.

If you have a broad enough experience, then yes, you can compress it.

Mr. OBERSTAR. I understand that conditions vary from one area of the country to the other.

Mr. KUHN. I think the scale of the project has a great deal to do with the time frame we are talking about.

Let me make a comparison for the committee for a sanitary district in Illinois. In less than 1 year there was a bond issue to provide the funds to proceed, construction began in 1969. In the course of this, there was a question raised as to the extent of the service area interfacing with the county, another study was made for long-range planning, which you might call 201. It took less than a year to do this, in 1971. The major construction program totaled about $150 million worth of construction, which is just winding down now. There has been some State of Illinois money tacked onto it.

Mr. OBERSTAR. The actual engineering work itself did not take very long?

Mr. JONES. I think for most of the projects that we were talking about, the pure design of the facility is a six month operation. The other 3 to 6 months is the preliminary design report, maybe a little assistance in local financing, but certainly a year is ample time to accomplish all of those operations, including the 6 months that is the pure hard design, that the plans and specifications are turned out. So the year on the small project does encumber and include all the normal functions that the consultant gets involved with, that are over and above the pure design.

Mr. OBERSTAR. Mr. Loveland?

Mr. LOVELAND. We could probably give you some data, if you would like. We are also building drinking water treatment plants in places where there is not this regulatory funding involvement. There are some differences between treatment for drinking and dumping in the stream, but these are basically large mechanical operations.

I think we could show you the kinds of time frames in which a drinking water plant is authorized, and when they were actually designed and gone out to bids. It is a fraction of what you are talking about here.

Mr. OBERSTAR. So, if you add, really to the basic hard-core engineering work itself, a year, 2 years of administrative review by State and Federal bureaucracies, then compliance with all of these Federal laws, Executive orders, State laws, and so on, that really adds maybe 150 percent to the time of the actual engineering work itself?

Mr. GREENLUND. I would say more nearly a factor of four to five.

Mr. JONES. 150 percent is a mere minimum; it could easily be 2, 2½ to 3.

Mr. OBERSTAR. All during that time the costs continue to rise?

Mr. JONES. Yes.

Mr. CLEVELAND. On that Pennsylvania case, what is the financing on that?

Mr. GREENLUND. One hundred percent financing, we determined that because it has a number of factors, including a growth factor pressing, and the fact that these people, if they do absolutely nothing, they are under a partial ban from the States. If they do nothing their user charges are going to increase more than if they go ahead without funding, because of the growth that will take place, that will be permitted to resume.

Mr. CLEVELAND. That 2 years you have stated to this subcommittee was an example where EPA was out?

Mr. GREENLUND. No Federal funding of any kind whatsoever. Just local funding. The only agency we have to deal with is the Pennsylvania regulatory agency, and they have been most cooperative. We have worked on that project with previous reviews with them, and we keep them informed as we go along, because it is a local region, and that expedites the process greatly.

That is impossible with the EPA region, to keep them involved in the progress of every project, in the way that we would do it on a local basis. It all adds up to help the local situation.

Mr. CLEVELAND. It is a very fine commentary on the EPA construction grant program.

Mr. GREENLUND. Well, as I indicated in my written testimony, more and more of my projects are not involved in Federal funding, in Federal grant funding, and I can do a better job for my client, and he can get a better job, frankly, at less cost than he can if we play the EPA game. There is no question in my mind about it.

Mr. OBERSTAR. I would like to have for the record, without objection, to be entered at this point, the information you referred to about the water treatment plant on the time frame involved in that design and engineering. I think it would be very, very useful for the committee's work.

I want to thank all members of the panel for their very constructive presentation, and most helpful to the endeavors of this subcommittee.

[The following was received for the record:]

O'BRIEN & GERE

January 21, 1980

Mr. Larry Bory
American Consulting Engineers Council
Suite 802, 1015 15th St., N.W.
Washington, D.C. 20005

Dear Larry:

At the request of the Oversight Committee, we have searched through our files for some records of comparable water treatment plant design projects. Two of these were particularly comparable and I have included the information on the enclosed graph.

For the Town of Colonie, we designed the 15 MGD Latham Water Treatment Plant and the 5 MGD Mohawk View Wastewater Treatment Plant. I have enclosed two pictures for you to give to the Committee. Picture A shows the water treatment plant in the foreground and the sewage treatment plant in the background and picture B shows just the reverse. I thought these pictures showed better than anything else how comparable the two projects really are. The difference in flows is accounted for by different service areas. The cost of both plants would be about the same at an equivalent ENR Index Number. It is interesting to note that from the authorization of engineering to the award of the construction contract, it took just a little less than 1-1/2 years for the water treatment plant, while with the sewage treatment plant it took six years.

For the City of Oneida we have designed both a 3.0 MGD water treatment plant and a 2.5 MGD sewage treatment plant. It is interesting to note that we started the water treatment plant 2-1/2 years later and will finish it approximately three years earlier.

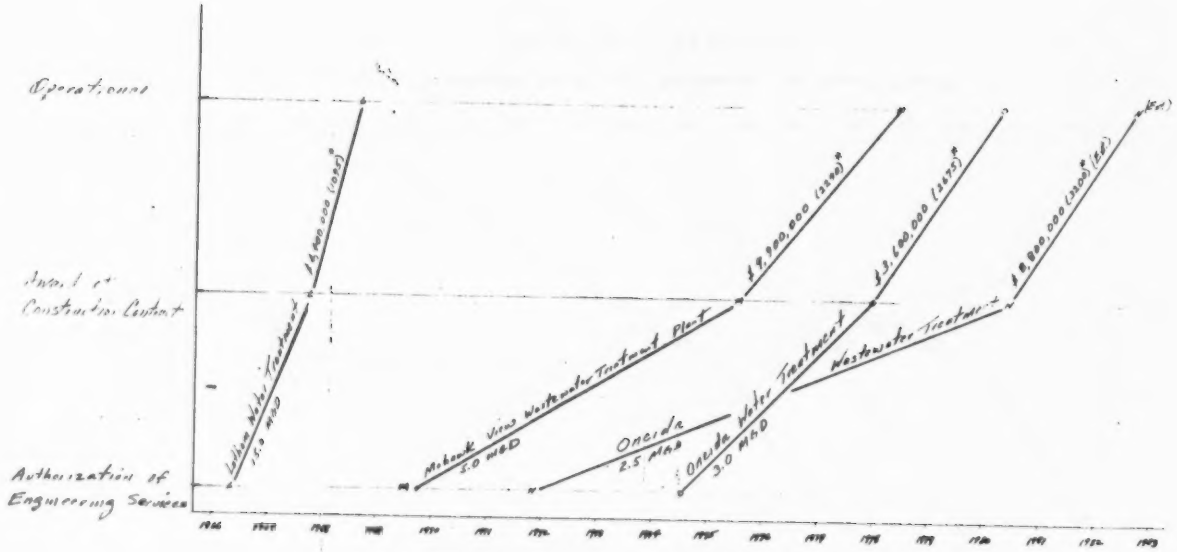
I have also enclosed a copy of the letter from Paul Kuhn on two of his water facilities. I trust the Committee will find this information to be helpful.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

John R. Loveland, P.E.
Group Vice President

JRL/ai
Enclosures




Water Treatment Plant and Wastewater Treatment Plant
Design and Construction

* Engineering News Record
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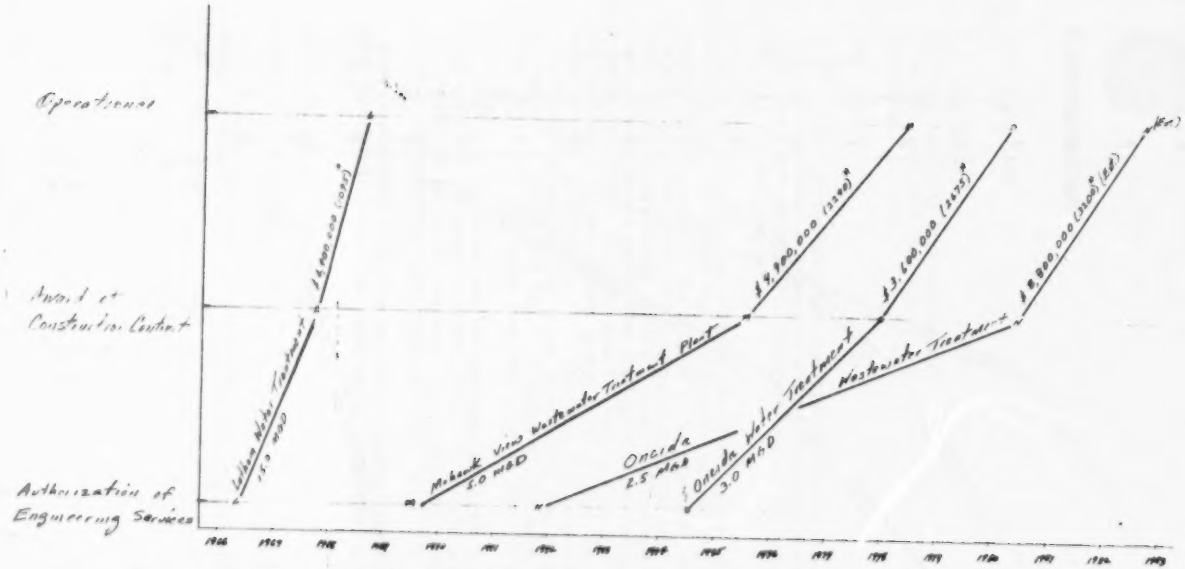


Water Treatment Plant and Wastewater Treatment Plant
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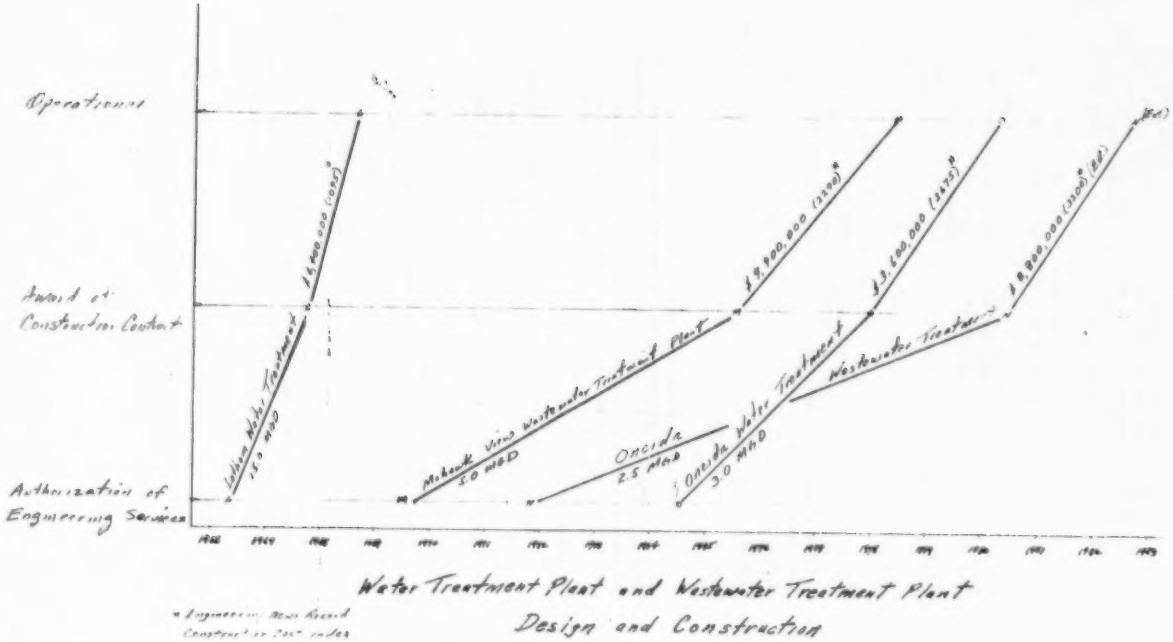


Water Treatment Plant and Wastewater Treatment Plant
Design and Construction

* Engineering News Record Construction Cost index

Jan 1980
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GREELEY AND HANSEN
ENGINEERS
222 SOUTH RIVERSIDE PLAZA CHICAGO, ILLINOIS 60606 TELEPHONE (312) 648-1155

November 21, 1979

Mr. John Loveland
Chairman, ACEC Environmental Committee
O'Brien & Gere Engineers, Inc.
1304 Buckley Road
Syracuse, NY 13201

Subject: Water Project Progress

Dear Jack:

As agreed, following our late October trip to Washington, we have put together information on one of our water projects to demonstrate how rapidly these projects can move as opposed to wastewater treatment projects. I may have one or two other projects I can add to your list but due to varying travel schedules, I have had trouble sitting the key people down to get the data pulled together.

The two projects are: Sioux Falls, South Dakota, North Pumping Station and Water Treatment Plant Extensions and the Sioux Falls, South Dakota, West Reservoir and Pumping Station. Key dates in connection with the first project are as follows:

October, 1966, complete report on water treatment.
September, 1967, complete plans and specifications for North Pumping Station (recommended in report).
December, 1969, complete plans and specificatiaons for Water Treatment Plant Extensions (recommended in report).
May, 1970, receive bids for the project.
September, 1972, dedication of the project and begin operation.

It should be noted that a substantial gap exists between the completions of plans and specifications for the Pumping Station and the Water Treatment Plant Extensions, although this comprised a single project. This gap was caused by the City's decision to

apply for a HUD grant to help finance the project. Most of the time gap and delay was due to the application for the HUD grant. The HUD grant was a blank grant with minimum administrative strings. Once the grant was received, there was literally no administrative delay bringing the project to bids and construction.

Pertinent dates of the West Reservoir and Pumping Station project in Sioux Falls are as follows:

November, 1976, complete report on water distribution system.
May, 1978, complete revisions to report on water distribution system.
February, 1978, begin site investigations (soil borings) and preliminary design studies.
September, 1978, complete preliminary design studies, site layout basis of design and the like.
February, 1979, complete plans and specifications.
March, 1979, receive bids.
April, 1979, award contract.
October, 1979, complete structural work.
May, 1980, projected construction completion and operational date for the project.

The second project, which shows just a little over two years elapsed time from the beginning of site investigations and preliminary design to operation, certainly demonstrates how a major water project can come into being with no outside administrative overview except, of course, the routine State Health Department review and approval of plans and specifications from a sanitary viewpoint.

If I get some additional information pulled together, I will forward it to you early next week.

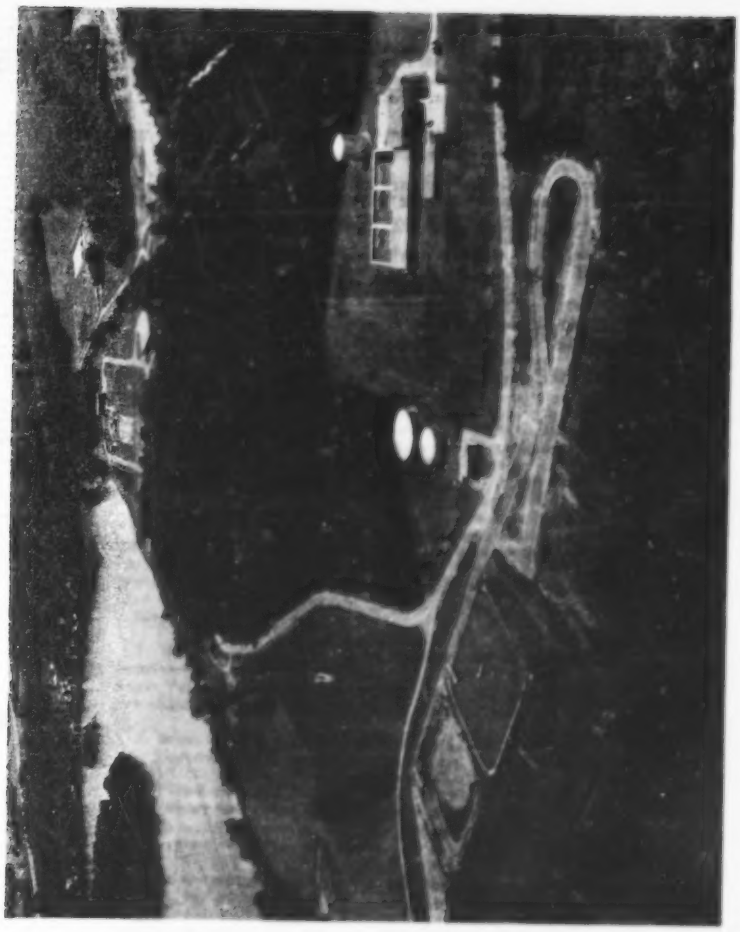
Sincerely yours,

GREELEY AND HANSEN

Paul A. Kuhn

PAK:fb

63-935 O—80——18



Mr. JONES. We certainly thank you for the opportunity to testify.

Mr. OBERSTAR. We thank you.

The subcommittee has received two additional statements today, one from the Water and Wastewater Equipment Manufacturers Association, with a covering letter from Mr. John M. Sheer, executive director of that organization, and another statement by the chairman of the board of National Hydro Systems, Inc., Chicago, Ill., Mr. Lawrence T. Sheker. Without objection, I order that these statements be included in the record at this point. Both entities are directly involved in water pollution control programs, and their statements will be most helpful to the committee's work.

[The following was received for the record:]

WWEMA

Water & Wastewater Equipment
Manufacturers Association, Inc.
1900 Westpark Drive
Suite 102
McLean, Virginia 22102
703 [illegible]

October 29, 1979

The Honorable Norman Y. Mineta
Chairman, Subcommittee on Oversight and Review
The House of Representatives
313 Cannon House Office Building
Washington, D.C. 20515

Dear Chairman Mineta:

Our organization, the Water and Wastewater Equipment Manufacturers Association, represents over 250 companies that manufacture and sell equipment and products to the water and wastewater industry. Our members have been involved in the wastewater treatment Construction Grants Program since its inception. As such, we are very concerned with its improvement and success.

Recent studies conducted by WWEMA have indicated that large treatment plant projects are suffering disproportionate administrative delays. Delays are primarily in facility planning and design of treatment plants over 4 MGD. Large treatment plant projects, serving populations greater than 50,000 citizens, are experiencing serious delays that can impact the 1983 secondary treatment water quality goals of the 1977 Clean Water Act Amendments. More importantly, large treatment plant projects can result in clean water benefits at lower cost for more citizen taxpayers.

WWEMA has evaluated probable causes of Step 1 and 2 project delays by sampling the experience of several states. Reasons for project delays are numerous and complex, but relate primarily to retroactive regulations evolving from the Clean Water Act Amendments of 1977. Good planning is beneficial for cost-effective wastewater treatment, but burdensome regulations to improve the planning can result in disproportionate project delays and costs, particularly when current inflation rates are considered. The Advanced Wastewater Treatment Regulation is currently delaying 57 projects involving almost $1.2 billion.

Program incentives and grant administration relief is needed soon to accelerate large treatment plant progress if the 1983 goals are to be achieved at optimum cost and benefit to the citizen taxpayer. These include:

1. An EPA program to monitor Step 1 and 2 project delays statistically, as is now done effectively for Step 3 projects. Monthly monitoring

reports should be based on projects, in addition to dollars, and segregated into large plants, sewers and small plants;

2. Enactment of legislation for incentives for timely state obligation of funds embodied in the Cleveland-Wright Bill (HR 4113) and the Hatfield-Packwood Bill (S. 1328). This legislation will prevent a slowdown of the Program in those states that have responsibly obligated funds and moved toward compliance with the objectives of the Clean Water Act Amendments of 1977;

3. Regulations need to be relaxed for Equivalent Secondary Treatment (EST or AST). Approvals need to be delegated to the states when the incremental cost of AWT/AST/EST is less than $3 million;

4. Congressional enactment of Clean Water Act funds, 8 months in advance of the fiscal year, is needed to restore and permit reasonable private sector planning. With 15 - 20% of the cost of the Clean Water Program associated with equipment and material supply, it is essential through Congressional leadership that a framework for long-range planning be established if the program is to proceed in an orderly and timely manner. Lead time for equipment and material supply is by the very nature of the program long term.

Besides the above recommendations, we feel that presently there is very little incentive for technical innovation by industry within the current EPA procurement constraints. EPA guidelines have improved relative to cash flow and restoring consultant and owner judgement in process and equipment selection. However, further progress is necessary before earnings are available for technology development.

A. The proposed EPA Innovative and Alternative Technology regulations are too stringent and delay projects. The 15% cost and/or 20% energy-savings criteria for 85% (rather than 75%) Federal funding need to relate to a unit process treating the wastewater or a by-product stream rather than the entire plant.

B. The 15% economic bias and all alternative technology reviews should be removed in evaluations of plants exceeding 0.150 MGD serving populations over 1,500. Such regulations have minor impact and create significant delays on all projects, in addition to being a technology disincentive.

Historically, our members have been the major source of advancements in the state of the art in terms of process and product development and improvement. Unreasonably low returns or uncertainties in long-range planning, as previously identified, has caused our membership to reduce or reallocate R&D expenditures or seriously consider doing same. We believe that lack of support by Congress and the Administration concerning the above issues will move many of our members from serious consideration to actual reductions of capital expenditures and manpower or reallocation of these resources to other markets.

We would like to reiterate the importance of a continued and stable Construction Grants Program. This will enable manufacturers, as one of the essential parties involved in this program, to continue to do our part in assuring our nation that the goals will be met for future generations to enjoy.

Thank you for giving us the opportunity to comment.

Sincerely,

JOHN M. SCHEER
Executive Director

JMS/jw

cc: House Subcommittee on Oversight and Review

STATEMENT

Re: FEDERAL WATER POLLUTION CONTROL ACT
"Free and Open Competition"

Presented To: SUBCOMMITTEE ON OVERSIGHT & REVIEW
OF THE
HOUSE COMMITTEE ON PUBLIC WORKS & TRANSPORTATION

October 30, 1979
Washington, D.C.

By

Laurence T. Sheker, P.E.
Chairman of the Board
NATIONAL HYDRO SYSTEMS INC.
West Chicago, Illinois

INTRODUCTION

The steps taken by EPA in late 1972 and early 1973 to develop guidelines and Rules and Regulations to implement the intent of Congress in Section 204(a)(6) of the FWPCA that non-restrictive specifications be the law governing the design and contract award of water pollution control projects, brought a long needed and much overdue "breath of fresh air" to the stagnant water pollution control equipment marketplace.

The abuses which had become a hallmark of the industry, that is, vaguely worded specifications or its opposite extreme--detailed specifications which described a mechanical arrangement available from only a "sole source" precluded competitive suppliers. These traditional restrictions, coupled with the convoluted, long and drawn-out procurement procedures necessarily present in a complex construction program subject to multi-agency reviews, had a debilitating effect on competition and "new ideas."

Those vested interests which had grown fat on the "status quo", whom we characterize as "Apostles of the Past," had little or no incentive to make "quantum" developments because of the "safe" and inherently stable marketplace---a marketplace where the rate of change had traditionally been measured in terms of decades rather than months or a few years as in other more competitive and innovative marketplaces.

Entry into the marketplace, by newer small companies with more cost-effective approaches to delivering equipment and systems, was effectively stifled before initial implementation of Rules and Regulations designed to promote "free and open competition."

EPA did develop and publish Rules and Regulations intended on the surface at least, to reduce sole source procurements, eliminate restrictive specifications and restrict experience clauses to special cases which required adequate justification.

THE PROBLEM

As with so many other good intentions, the real-world implementation of the lofty ideals of promoting cost-effective approaches to solving the nation's water problems leave much to be desired.

The "Apostles of the Past", with the tacit approval of EPA, have been able to maintain the "status quo" and effectively thwart badly needed changes in development and delivery of systems for water pollution control because:

- EPA has consistently taken a "hands-off" policy regarding determination and enforcement of the "or equal" providions, and
- EPA has refused to make Grantees comply with Federal anti-trust laws and its own Rules and Regulations.

Of course, to maintain the "status quo" a policing mechanism is needed so as to avoid the intrusion of unwanted competition. This policing role, sometimes shrouded with the innocuous term "area of judgment," has been generally returned by EPA to the "hands of the consultants" and "hands of the community." Only totally blind faith would allow knowledgeable observers of the Construction Program to testify to the across-the-board fundamental fairness of this system.

The opportunities for subtle (and sometimes not so subtle) pressures on the contractors and manufacturers by the "judge and jury" are so well known and of such magnitude that even with the prevailing rules and regulations few are willing to take on the "system." We have observed many situations which could have resulted in substantial savings to the Grantees, and ultimately the hard-pressed U.S. taxpayers, had the "system" not been so pernicious.

Nonetheless, in the grand tradition of American business, when new and more aggressive competitors cause even the slightest ripple on the historically stagnant pond of the marketplace, the howling chant arising from the slightly pricked pack of Apostles of the Past is great indeed!

The knee-jerk reflex of these Apostles to recite the time-worn gospel that "competition is great--for the other guy" can be observed time and again in articles appearing in trade magazines and journals of the industry--most recently, POLLUTION ENGINEERING, July 1978, WATER & SEWAGE WORKS, November 1978 and even the editorial page of the honored JOURNAL WATER POLLUTION CONTROL FEDERATION, November 1978.

It is continuously urged, for example, that monopoly positions be bestowed without the genuine tests of competitive bidding. It is claimed monopolies are needed in order to cover the costs of "research and development." On the contrary, the recorded experience of the water pollution control industry parallels that of all other industry. Nearly all major developments and new innovations have come out of smaller companies fostered by the spirit of free-enterprise. Almost without exception these companies do not share or enjoy the entrenched positions of the Apostles of the Past.

A CLASSIC EXAMPLE

A recent example, which demonstrates this classic principle in the water pollution control equipment marketplace, is to be found in sludge dewatering equipment. Belt filter presses, which were virtually unheard of in the United States a few years ago, were pioneered by one or two companies which had absolutely no position whatsoever in the sludge dewatering market. The Apostles of the Past ignored the idea with a smug confidence that the "status quo" would remain.

In spite of the inherent resistance to change which so characterizes the water pollution control marketplace, many value engineering studies performed on completed designs indicated substantial potential savings in both capital and operating costs--including reduced energy consumption. Recent bids observed by this writer in which there was direct competition between the "old" and the "new" methods have unequivocally verified the initial value engineering studies.

It is somewhat ironic that several of the Apostles of the Past who are so quick to condemn the evil sin of "me-too-ism" have rushed through "copy-cat development programs" in a last-ditch effort to "close the barn door" and "catch the departed train."

THE PENDULUM

Now we have seen the pendulum swing recessively back over the past couple of years, whereby the initially prescribed EPA therapeutic medicine of allowing some light and fresh air to penetrate the musky cellars of the marketplace is being thwarted by "novel techniques" aggressively promoted and lobbied by the Apostles of the Past.

Unfortunately, the imaginative barrier systems being espoused by the threatened establishment and their fellow travelers have occasionally been supplemented by "puff-ball" decisions made by several EPA Regions on procurement protests.

THE DIVINE RIGHT PRINCIPLE

In ways mysterious to this observer the Apostles of the Past have perceived themselves as enjoying something of an exclusive "divine right" to the federal tax monies used to construct municipal sewage treatment plants. Working on this "divine right" principle, these Apostles have been lobbying Congress and EPA to allow Contract Documents to incorporate restrictive clauses, some of which are in the form of "performance specifications" and which are purported to assure quality, identify responsible suppliers and eliminate "junk" products of low mechanical quality.

QUALIFICATION OF MAJOR ITEMS OF EQUIPMENT (PRM 79-10)

Most recently, EPA has published, after intensive lobbying by special interests, a new Program Requirements Memorandum PRM 79-10 which, when fully implemented, will have a debilitating effect on small businesses.

In our judgment this permutation of the procurement process is of doubtful legality in light of the specific wording of the FWPCA but to our knowledge has not been challenged on this basis.

This PRM is purported to increase "free and open competition." It has been clothed with other indulgences which, at first glance, sound good, Nonetheless, the bottom line will be to reduce the number of competitors, increase the costs of trying to do business, and return the powers of arbitrary decision making to the sterile monasteries where the "judge and jury" have ultimate powers of absolution.

Experience has shown that the opportunities for arbitrary dismissal of a manufacturer's "qualification" submittal are almost boundless. It is to be noted that at the stage before bidding all the competitive forces in the marketplace are not at work. Absent are such critical factors as price and delivery. Always present is a time constraint which increases bidding costs, reduces sources of supply and precludes the objective discussion and interpretation of Contract Documents which regularly occurs during "Shop Drawing" review after award of contracts.

Congress should not be misled in this matter of "qualification." This mechanism has faithfully served in the past to reduce sources of supply and, as it is implemented in the future in an even more restrictive forms, will tend to further stifle the competitive "breath of fresh air" so badly needed. The net effect of "qualification", even though it is allowed on an optional basis, is to limit and restrict competition.

This new "epistle" now being actively promoted by the Apostles of the Past will serve to virtually eliminate all opportunities for businesses other than those which first perceived the "vision" to compete for the procurement funds.

THE FINAL REWARD

But why are these Apostles of the Past so vocal in promoting restrictive mechanisms such as the "qualification epistle?" The fact of the matter is that such procedures go a long way towards "rationalizing" the water pollution control equipment marketplace. One's imagination need not be stretched too much to visualize a procedure employed which would "divvy-up" the available business once the so-called "competitors" are frozen in place.

The "anti-competitive medicine," which some would like Congress to prescribe in even larger doses, does absolutely nothing to increase the immunity of the water pollution control industry to those price-fixing problems which have characterized so many other industries. In fact, the effect would likely be just the opposite. HARVARD BUSINESS REVIEW in its July-August 1978 issue discussed the conditions which frequently contributed to price-fixing. Identified as typical industry characteristics were:

- Over capacity
- Undifferentiated Products
- Frequent job-order pricing
- Contact with competition
- Large, price sensitive customers.

The same article suggested typical company characteristics to be:

- Collusion culture
- High rewards for profit
- Decentralized pricing decisions
- Wide spread trade association participation
- Reactive legal staff
- Loose, general ethical rules.

Many of the identified characteristics are present at this time in the water pollution control marketplace.

The bold suggestions being made by some towards combating the evils of "free and open competition" make it likely that it is only a matter of time before lawsuits are brought by interested parties which will challenge the contorted efforts to return to the "good ole days."

THE CURE

Unfortunately, the diagnosis by the Apostles of the Past of the illness afflicting the water pollution control industry has been imperfect. Section 204(a)(6) not only prescribes the much maligned "or equal" medicine. It first calls for "...specifications... (to be)...based upon performance...". The Regulatory Agencies led by EPA have not insisted upon adequate and genuine "performance specifications."

The American System of free-enterprise, the bedrock of small businesses, is struggling to stay alive in the water pollution control marketplace. We think Congress should:

- Encourage systems and procedures which maximize rather than reduce competition.
- Instruct EPA not to build artificial barriers which prevent market entry by new and especially smaller manufacturers.
- Direct EPA to take a more aggressive attitude to assure the survival of free-enterprise and small businesses by requiring "free and open competition" in more than appearance only.
- Direct EPA to be sure each Regional Office, or other agency responsible for Contract Document review, know, understand and vigorously enforce the nonrestrictive specification requirements of Section 204(a)(6).
- Adopt a more aggressive attitude towards assuring that its intent regarding "free and open competition" be met threrby getting maximum return on the dollars invested in this important National Program.

It should be made "loud and clear" to those participants in the industry who think competition should only be for the "other guy" that Congress does not want to return to the "good old days."

63-935 O—80——19

Mr. OBERSTAR. Our next witness is Mr. Gorman Pinkston, accompanied by Mr. Robert Sansom.

Do you solemnly swear the testimony you will give will be the truth, the whole truth, and nothing but the truth, so help you God?

TESTIMONY OF GORMAN PINKSTON, PRESIDENT, ATLANTIC UTILITIES CONSTRUCTION, INC., PORTSMOUTH, VA., ACCOMPANIED BY ROBERT SANSOM, PRESIDENT, ENERGY AND ENVIRONMENTAL ANALYSIS, ARLINGTON, VA.

Mr. PINKSTON. I do.

Mr. SANSOM. I do.

Mr. OBERSTAR. We welcome you, and thank you very much for being with us today. We look forward to your presentation. We have your complete statement, which, without objection, will appear in the record in full at this point.

[The following was received for the record:]

STATEMENT OF A. GORMAN PINKSTON, NATIONAL UTILITY CONTRACTORS ASSOCIATION

Mr. Chairman and members of the committee, my name is A. Gorman Pinkston. I am Chairman of the National Utility Contractors Association's Construction Grants Committee. NUCA is a 2,000 member organization whose members are involved in laying water and sewer pipes and building related clean water facilities in both the public and private sectors across the country. We are very interested in the implementation of the Clean Water Act and would like to share with this committee a few of our concerns. We also have certain recommendations which we believe will expedite the construction grants program. We thank the chairman and the committee for allowing us to testify.

With me today is Dr. Robert Sansom, President of Energy and Environmental Analysis, an Arlington, Virginia consulting firm, and a former assistant administrator of the Environmental Protection Agency.

I will address the issues from the view of my association and as a contractor who does work under this program in the Virginia Tidewater area. Dr. Sansom, who serves as NUCA's EPA consultant, will be pleased to answer any questions about technical aspects of the program.

NUCA believes the construction grants program is alive and well. EPA has been administering the program as set forth in the 1977 amendments to the Clean Water Act for two years now. Despite serious problems in 1978 due to excessive enthusiasm on the part of the agency for new rules and regulations and interpretation of congressional intent, we feel the agency has resolved a number of its administrative problems and has moved forward towards the business of cleaning up our nation's waters.

There is increasing stability in the program, but there are still a multitude of factors which impact on EPA's ability to carry out its congressional mandate. We would like to discuss with the committee a few of the rules and regulations which we feel negatively impact the program.

EPA officials have privately told NUCA that the processing time for Steps I and II has gone from two years to nearly four years.

Part of this delay is obviously caused by the 1977 amendments, but NUCA believes it's the myriad of rules and regulations accumulated since the original act that cause the real delays in the projects. It's not just one rule or regulation but all of them taken collectively.

STATE MANAGEMENT OF THE PROGRAM

This committee is considering the issue of how well the states are taking over many of the management functions of the program as called for in Section 205 (g) of the 1977 amendments.

Part of the failure on the part of the states to adequately administer the program stems, we feel, from state uncertainties over the commitment by Congress to the program. After all, why should a state such as California gear up to fully implement the program at the perceived funding level of $5 billion a year nationally only to find the actual appropriation to be $4.2 billion or $3.4 billion and heaven knows how much in 1981. California, we understand, is now cutting back on its administrative personnel for the Clean Water Program.

Multiple year appropriations and/or adequate funding of state management assistant grants would alleviate some of the problems now being encountered by the states, particularly the biggest problem of all -- uncertainty.

As advocates of less federal control over our lives, the National Utility Contractors Association applauds the action by Congress in delegating more authority over the Clean Water Program to the states. We

believe local people understand their local problems much better than a desk-bound Washington bureaucrat.

In actual practice state management of the program has been mixed. Some states are doing a good job of administering the program while others are not and once stable funding of the state programs is achieved we would support a properly developed training and oversight program.

MINORITY BUSINESS ENTERPRISES

EPA's construction grants program has become one of the government's guinea pigs for testing social medicine. For instance, a certain percentage of EPA water and sewer work must be given to minority contractors -- the so-called "MBE" clause. The rules and regulations for MBE participation in one region often have little in common with rules and regulations in other regions. In addition, EPA is now proposing goals for women-owned firms which may prove unrealistic and unworkable in many areas.

To get some commonality in the implementation of the MBE policy we have been asking EPA's office of civil rights to sit down with us since last October to draw up a simplified set of national guidelines for grantees, engineers and contractors to follow in meeting the requirements of the various MBE regulations. We do not yet have those guidelines and contractors are forced to interpret the regulations in each area as they see fit.

Regardless of the different minority goals in each region we believe the EPA could put together a check list of "Things to Do" when searching for a qualified MBE subcontractor so the prime contractor could "check off" and document his efforts. We feel a very simple document detailing

the steps all parties should take to fulfill their MBE requirements would do much to alleviate the delays caused by the MBE program.

Finally, it is vital that EPA not succumb to further political or social pressure by failing to recognize "best efforts" on behalf of grantees and contractors. The lack of a "qualified minority" in an area should not impede the progress of the clean water program.

We must also parenthetically ask, when faced with the MBE requirements, is this an environmental program or a social program?

## PUBLIC PARTICIPATION

NUCA agrees that the public should be participating in hearings on clean water projects in their community. However, we feel this involvement by the public should come as early in the grants process as possible. All possible problems and objections should be settled by the middle of Step II at the latest. We have seen groups -- Ohio has such a problem right now with the O'Bannon Creek Regional Sewer Project -- coming in at the 11th hour to file suit against a project that has already had the required public hearings. If there is to be a problem we are hopeful EPA will insist it is solved early on in the grants process, not as a project is about to go to construction. We would be pleased to further discuss this matter with the committee.

## RETROACTIVE REGULATIONS

As this committee knows, retroactive regulations applied to the

construction grants program send Step III grants back to Step I or Step II.

We are submitting for the hearing record information compiled by just one of our 38 chapters (Western Pennsylvania) which demonstrates the problem. (Attachment A)

This committee also knows of the efforts of Senator Henry Bellmon (R-OK) to attach an amendment to the F.Y. '80 appropriations to prohibit those funds from being used to enforce retroactive regulations.

However, EPA's Deputy Administrator, Barbara Blum, in hasty response to the Bellmon amendment, sent Senator Edmund Muskie (D-ME) a letter promising no retroactive regulations would be applied to Step III projects under construction or scheduled to be under construction within six months.

It has been four months since the letter was issued. "Where is the policy which will implement the promises?" is the question we believe this committee should ask of EPA.

INNOVATIVE AND ALTERNATIVE POLICY

Perhaps the most disturbing regulation concerns EPA's apparent policy bias against conventional collector sewers in favor of "Innovative and Alternative" technology.

The 1972 Federal Water Pollution Control Act gave birth to the Construction Grants Program in order to provide funds for the construction of water pollution abatement facilities. The Act delineated several funding conditions for grant applications, including the requirement of project cost-efficiency (Section 212 (2)(B)). The 1977 amendments

to the Clean Water Act mandated the examination of innovative and alternative (I & A) technologies for water pollution abatement (Section 201 (g)(5)).

On March 3, 1978 EPA issued PRM 78-9 which outlined EPA's policy towards conventional collection system funding. Under this memorandum, conventional collector system plans must demonstrate where population density is lower than ten people per acre, that I & A technologies are less cost-effective than conventional collection and treatment. Further, where population densities are less than 1.7 people per acre, collector systems would be ineligible for funding unless a severe public health or pollution problem from the existing system can be specifically documented. Population densities must be evaluated on a block-by-block basis or in five-acred segments if city blocks do not exist, for the entire area served by the proposed collection system.

EPA's intention, as we understand it, in formulating the anti-collection system policy was to encourage economical and reliable wastewater disposal technologies in small communities. However, this policy immediately came under attack as placing a severe analytical burden on grant applicants and reviewers, while forming a potentially serious delay to efficient grant processing. We would like to place in the record copies of correspondence from the State of Michigan to EPA which point out the problem I & A bias is causing (Attachment B) and copies of correspondence from New York also detailing the I & A problem (Attachment C).

NUCA has no quarrel with encouraging innovative and alternative technologies as Congress has suggested. Our argument is with the absence of a detailed cost analysis of the varous alternatives. EPA never demonstrated the need for cost analysis at such high population densities as

ten people per acre.

And because there was no detailed cost analysis many small communities found they were reinventing the I & A wheel when they started considering what would be the most cost-effective and energy efficient system for cleaning up the water in their communities. After considering many I & A technologies these communities would then find conventional systems to be most cost-effective. Such actions on the part of small communities lead to delays and increased costs in the program.

With these considerations in mind NUCA retained Energy and Environmental Analysis, Inc., to provide an objective comparative review of the economic, site-specific, and performance factors of conventional and alternative technologies.

NUCA and EEA have met on two occasions with EPA technical personnel to discuss the findings of the study by EEA. Even using revised assumptions suggested by EPA the study shows that conventional systems are more cost effective than I & A systems down to population densities ranging from 2.0 to 3.1 people per acre. Clearly EPA's policy forcing I & A assessments below ten people per acre is not factually based.

Dr. Sansom, the author of the study is with me today and will be pleased to further explain his findings to the committee at the conclusion of our testimony.

Although we may have appeared to be critical of EPA's management of the construction grants program, we do so in a constructive spirit. Our purpose in appearing before this committee is to offer suggestions that will help move the program forward towards its goals.

Our objections have been to apparent misinterpretation of congressional intent, use of the program for no-growth planning, use of the program for social purposes and over-zealous regulation writing. And these range from

archeological reviews to secondary environment considerations to those we have discussed today.

In closing NUCA would like to make a few management suggestions. The Oversight and Review Committee should insist that EPA conduct a thorough and systematic evaluation of the rules and regulations affecting the construction grants program to see just how long each existing rule or regulation delays the program implementation and what modifications could be made to clear up the delays.

Further, we would like to see the committee instruct the agency to evaluate the impact of each rule and regulation prior to the issuance of that edict. Each government agency must do its part to cut red tape. We would hope to see EPA become a leader in cutting red tape by its handling of the construction grants program.

For instance, EPA is currently proposing another policy guidance memorandum on easements and rights-of-way which would be disastrous! If construction is delayed until all easements have been obtained, as the PRM would require, we would see sharply accelerating construction costs, increased inflationary pressures and added burdens on small communities. Delayed construction is without question the major cause of increased costs and efforts should be devoted to speeding up construction not throwing road blocks in its path.

In short, NUCA and EPA have our squabbles, and that's what they are -- squabbles. We believe the agency has the responsibility for running one of the most complicated programs ever conceived and they are doing an admirable job under difficult circumstances. We know for instance that the agency has been losing construction grants personnel to the sexier programs such as toxics. This loss of personnel has not been matched

with a corresponding increase in state management staffs and something has to suffer.

We do feel EPA has picked up much of its necessary field personnel under the auspices of the Corps of Engineers. However, EPA will have to continually be on guard as the Corps of late has had a tendancy to believe that it is running the program, not the EPA.

In conclusion, Mr. Chairman, the National Utility Contractors Association would like to go on record as not endorsing any major legislative changes in the clean water program at this time. The possible exception would be the Cleveland-Wright two-tier funding mechanism which we believe is necessary since the state cannot rely, as we stated earlier, on either multi-year funding or adequate appropriations on a yearly basis.

In my business, as you can imagine, we deal with machinery quite a bit. We have a saying: "If it ain't broke, don't fix it." NUCA believes the same rule can be applied to EPA's construction grants program. The construction grants program isn't broken, it only need a few minor adjustments -- a business-like view of the regulatory process. Better management, not a legislative overhaul.

We thank the committee for its indulgence. Dr. Sansom and I would be pleased to take your questions.

# Western Pennsylvania Utility Contractors Association

1 Parkway Center, Room 214 • Pittsburgh, Pennsylvania 15220 • Area Code (412) 922-7091

...dent: Gerald T. Vitale, Jr.
... President: John F. Dougherty, Jr.
...tary: Margaret J. Decker
...ant Secretary: Alan M. Weiss
...urer: Arthur A. Swartz
...ant Treasurer: Roy A. Davis

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Daniel Carapellucci
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John E. Kotch
Emanuel A. Paris
Harold J. S...
Angelo Sciullo
Executive Director: William R. McGuade...

August 17, 1979

Mr. John Pannullo
NUCA
815 Fifteenth Street N.W.
Washington, D. C. 20005

Dear John:

The Western Pennsylvania Utility Contractors Association for some time has urged NUCA to seek provisions that the changing of policies, regulations, requirements, or procedures by EPA will not be retroactive. We appreciate the fact that you remembered our interest and experience with this EPA problem. Ron Buckhalt called and asked our opinions and recommendations concerning the memo from Barbara Blum, the Deputy Administrator, clarifying non-retroactive requirements.

As you know, we bird-dog every EPA sewer funding application for Western Pennsylvania each month. We talk personally with each consulting engineer, and then Pennsylvania DER and EPA when necessary. These monthly calls determine who has each application, what is delaying Step 1, Step 2 or Step 3 approvals. Appropriate efforts are made to move slowly moving or stalled applications.

Engineers have blamed long delays on retroactive regulations requiring changes to completed design or completed paper work. In some cases, jobs are reversed from near Step 3 approval to Step 1 for delays of several years.

Our opinion was that retroactive changes have been most damaging when affecting projects before the Step 3 grant award. To verify this opinion, we personally talked with ten consulting engineers who have processed projects for at least seven years, and have been and are continuing to do EPA project design and processing.

Ron Buckhalt requested some specific examples of delays. With the engineers' permission, we submit the following specific examples:

Perry Township, Lawrence County. Project No. 420968-01. Bruce Fletcher of Chester Engineers reporting. 1971 Start Feasibility. 1972 and 1973 Grant application, Step 3, prepared plans and

specifications under P.L.660-92500. A required 201 Facilities Plan sent it back to Step 1 to meet new law. Delayed by new 78-8 and then 78-9. Anticipated advertising for bids in October 1979.

Wayne Township, Lawrence County. Project No. 421019-01. John Kane and Bruce Fletcher of Chester Engineers reporting. Practically the same as Perry Township 5½ to 6 years processing.

Franklin Township, Beaver County. Project No. 421045-01. Don Cassler of Duncan-Lagnese reporting. Same as above. $60,000 engineering costs not paid, and might not be paid.

Saegertown Sanitary Authority, Crawford County. Project No. 420924-02. John Kane of Chester Engineers reporting. 201 Facilities study required in 1974. Going to Step 3 when 78-9 delayed two years. Originally instructed by EPA to include long collector sewer to high school. Now told to redesign plant and lines to eliminate high school. Cost incurred for design changes. Estimated bidding in 5-6 months.

Brookville, Jefferson County. Project No. 420860-02. Terry Rhinehart of Chester Engineers reporting. Studies completed in 1972 and got Step 3 under 660-92500. Went back to Step 1. Pennsylvania Priority Point System changes have made it a project not to be considered for several years.

Oliver Township. Frank Sanders of Penn State Engineering reporting. Under 660-92500, it was Step 3. Now it is beginning Step 1.

Newton-Wayne Authority, Mifflin County. Frank Sanders of Penn State Engineering reporting. Under 660-92500, was Step 3, now back to Step 1. Stopped, due to lost state priority.

Greene Township, Clinton County. Frank Sanders of Penn State Engineering reporting. Under 660-92500, was Step 3. Now has Step 1 for new design. Engineer not paid for original design.

Granville Township, Mifflin County. Frank Sanders of Penn State Engineering reporting. Same as Oliver, Newton Wayne, and Greene. Now is Step 2.

Mid-Centre Township, Centre County; Wayne Township, Mifflin County; Shirley Township, Huntingdon County; Armagh Township, Mifflin County. Frank Sanders of Penn State Engineering reporting. All delayed by 78-9. Recently, Wayne and Shirley delayed by new MBE requirements.

North Sewickley Township, Beaver County. Project No. 421018-01. Don Cassler of Duncan-Lagnese reporting. Facilities Plan in Step 1 has not been completed because of revised requirements. 78-9, public participation, MBE. After April 1980, if grant is not received, they will not be reimbursed for work preparatory to grant.

Robinson Run Drainage Area, Allegheny and Washington Counties, including Oakdale, North Fayette, South Fayette, McDonald (all separate contracts) delayed two to three years by 78-9. Ed Taylor of Betz-Converse-Murdoch reporting.

Manor Township, Westmoreland County; Ford City, Armstrong County; Connellsville, Fayette County. Ron Spray of Hankson Engineers reporting. Went back to Step 1 and in the interim lost state priority and will not progress for at least 2-3 years.

Upper Allegheny, Allegheny County. Project No. 421198-01. Wilbur Van Riper of Hill & Hill Engineers reporting. Under 660-92500, back to Step 1 and 78-8, 78-9 delays. Estimates advertising in December 1979.

There are now only seven projects in Western Pennsylvania in Step 3 or approaching Step 3 for grant awards. These projects, in spite of new public participation delays and MBE delays, hopefully will be bid by January 1980. All other (67 in number) projects are mostly approaching Step 1, and a few are in Step 2. All engineers report the big delay is Step 1 because they cannot get facilities plans completed, due to changing requirements and procedures that are retroactive. Our examples are only a few that we spot checked. you can imagine what the story is for all Western Pennsylvania and for all the United States.

Many engineers contacted in this survey said they are sending to ACEC similar project reports which are to be sent to EPA. The engineers compliment

NUCA for their effective activity and would like to see NUCA work with ACEC and use the information ACEC has secured.

Sincerely yours,

WESTERN PENNSYLVANIA UTILITY
CONTRACTORS ASSOCIATION

Harold J. Schneider, Chairman
NUCA-EPA Region III Task Force

HJS:MF

cc: Gerald T. Vitale, Jr.
John Dougherty, Jr.
David Shevock
Norman Pinkston

ATTACHMENT "B"

NATURAL RESOURCES COMMISSION
JACOB A. HOEFER
CARL T. JOHNSON
T. M. LAITALA
HILARY F. SNELL
HARRY H. WHITELEY
JOHN I. WOLFE
CHARLES G. YOUNGLOVE

WILLIAM G. MILLIKEN, Governor
DEPARTMENT OF NATURAL RESOURCES
HOWARD A. TANNER, Director

August 30, 1979

Mr. Steve Wagner
Executive Director
Consulting Engineer's Council
1407 S. Harrison Road
East Lansing, MI 48823

Mr. Robert Patzer
Associated Underground Contractors
2355 Franklin Road
Bloomfield Hills, MI 48013

Mr. John Dougherty
Underground Contractors Association
4550 Cascade Road, S.E.
P.O. Box 2124
Grand Rapids, MI 49501

Gentlemen:

Enclosed is a copy of some correspondence from U.S. EPA regarding the evaluation of collection sewer projects and on-site individual treatment systems. I am providing this information to you so that you will be aware of the different criteria being applied to these types of projects. We perceive that EPA has established a "double standard" whereby collector sewers get a rigorous review not required for on-site systems. Our efforts to alleviate the double standard with EPA have been unsuccessful, and it appears that our agency must merely publicize its existence and tolerate the resulting program inconsistencies.

The basic issue lies with the extent of pollution problem which must be identified before a project can be approved for grant funding. In the case of collecting sewers, EPA issued PRM78-9 which contained the following requirements for problem documentation:

> "New collector sewers should be funded only when the systems in use (e.g., septic tanks or raw discharges from homes) for disposal of wastes from the existing population are creating a public health problem, contaminating groundwater or violating the point source discharge requirements of the Act. Specific documentation of the nature and extent of the health groundwater and discharge problems must be provided in the facility plan. Where site characteristics are considered to restrict the use of on-site systems, such characteristics, (e.g. groundwater level, soil permeability, topography, geology) must be documented by soil maps, historical data and other pertinent information. The facility plan must also document the nature, number, and location of existing disposal systems which are malfunctioning. A community survey of individual disposal systems is recommended for this purpose and is grant eligible."

In this manner, EPA has created a requirement whereby all proposed collector sewer projects must prepare voluminous and substantial documentation of problems prior to receiving approval. In contrast, EPA is preparing to expedite the approval of on-site systems (such as septic tank renovation) with a much less rigorous problem documentation effort. The attached material from Todd A. Cayer and Henry L. Longest clearly indicates that the requirements being applied to new collector sewers need not be applied to on-site systems. Page 2 of Mr. Longest's correspondence indicates that "malfunctioning septic systems releasing inadequately treated effluents to aquifers or surface waters are grant eligible for rehabilitation, upgrading, replacement or other construction measures to correct the problem. Evidence such as a direct septic discharge plume into a lake or the leakage of septic effluent to ground surfaces is acceptable evidence of septic systems failure, where such failures can be atributed to specific systems".

It is apparent that EPA is interested in requiring a detailed review only in cases where a collector sewer is proposed as a solution instead of on-site systems. Under this policy, situations are expected to crop up where problems have not been sufficiently documented to warrant a sewer system and yet these areas may be able to qualify for funding of on-site systems such as septic tank replacement.

In summary, the DNR must implement these EPA policies, but we wanted to bring them to your attention so that you will have a clear understanding of the situation. If you have questions on this material, please feel free to contact me.

Very truly yours,

WATER QUALITY DIVISION

Richard T. Hinshon, Chief
Grants Administration Section

RTH:ms
cc: T. Cayer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION V

DATE: 6/11/79

SUBJECT: Innovative and Alternative Project
Needs Documentation and Status

FROM: Todd A. Cayer, Assistant Division Director
for Construction Grants

TO: Michael Cook, Director
Facility Requirements Division (WH-547)

During his May 18, 1979, visit to Region V, Mr. Jorling stated that he would recommend preparation of a new PRM on needs documentation for innovative and alternative treatment systems--particularly on-site upgrading. We are writing to outline our concerns and suggest some possible approaches to preparation of such a PRM.

Background

During a recent eligibility determination for an innovative and alternative project, Michigan Department of Natural Resources (MDNR) staff made a preliminary determination that little or none of the project was fundable. This decision resulted from strict application of the PRM 78-9 needs documentation criteria (violation of water quality standards or an identified public health problem) to decentralized approaches--notably on-site maintenance and upgrading.

Use of these standards affected the project in two ways. We had documented a direct causal relationship between 90 shoreline septic tank systems and local concentrations of weedbeds and attached algae that were affecting swimmability of portions of the lake and impacting scenic and other natural values; this was rejected as justification, even for on-site upgrading. We had documented that numerous filter fields along the one portion of the shoreline had their pipes submerged, and that these sites coincided with elevated groundwater nitrates; this was rejected as justification for on-site upgrading or cluster systems, as the filter fields, though under water, were not yet polluting the lake, and the elevated nitrate concentrations approached, but did not exceed, the water quality standard.

In addition, replacement of grossly undersized septic tanks and purchase of a pumping wagon were declared ineligible, since they were in essence preventive measures. A later discussion with an Illinois EPA representative resulted in a basically similar opinion about the project. Both the Illinois and Michigan staff indicated that "it would be a great thing if some preventive measures were fundable, but you can't argue with the PRM".

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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In addition, replacement of grossly undersized septic tanks and purchase of a pumping wagon were declared ineligible, since they were in essence preventive measures. A later discussion with an Illinois EPA representative resulted in a basically similar opinion about the project. Both the Illinois and Michigan staff indicated that "it would be a great thing if some preventive measures were fundable, but you can't argue with the PRM".

Each of these unresolved points has the potential for impeding the use of innovative and alternative technology. It is noteworthy that agencies that were most reluctant to apply the full PRM 78-9 criteria to collector systems, for which it was intended, are most eager to apply it to decentralized alternatives, for which it was not intended. A prompt response can allow continued vigorous implementation of the intent of the amendments to the Clean Water Act.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9 AUG 1979

OFFICE OF WATER AND
HAZARDOUS MATERIALS

MEMORANDUM

SUBJECT: Innovative and Alternative Project Needs Documentation and Status

FROM: for Henry L. Longest, II., Acting Deputy Assistant Administrator for Water Program Operations (WH-546)

TO: Charles Sutfin, Director
Water Division, Region V

In his memorandum of June 11, 1979, to Michael Cook, Todd Cayer outlined Region V concerns about needs documentation for innovative and alternative treatment systems, particularly on-site systems upgrading. Mr. Cayer referred to Mr. Jorling's statement during his May 18, 1979, visit to Region V that he would recommend preparation of a new PRM to cover this matter.

Although preparation of a new PRM has been considered, several months of preparation and review would be required before it could be finalized. It is anticipated that this memorandum, which is being distributed to all Regions, will sufficiently clarify the points in question and thus make issuance of another PRM unnecessary.

The difficulties arose from the States of Michigan and Illinois interpretation of PEM 78-9, specifically the needs documentation criteria (violation of water quality standards or an identified public health problem) as applied to small systems approaches. On-site system upgrading, cluster systems, replacement of undersized septic tanks and purchase of a pumping wagon were declared ineligible for grants. The latter two (2) items were considered as not eligible "preventive" measures. In addition, some state officials, notably those from Minnesota and Wisconsin, define the low-pressure sewer connecting a cluster filter field to its grinder pumps or effluent pumps as a "collector". States not certifying collector sewers for grant funding are also refusing to do so for "cluster collections".

Section 101 of the Clean Water Act of 1977, (PL 95-217) states that the objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. 40 CFR 35.918-3 states that best practicable waste treatment (BPWTT) criteria shall be met for disposal of effluent on or into the soil from individual systems. In accordance with EPA-403/9-75-013, BPWTT criteria require effluent from soil absorption systems to be of drinking water quality at the point where it reaches aquifers or potential aquifers. Both the construction grant regulations (40 CFR 35.918-3) and BPWTT criteria require individual system discharges to surface waters to meet effluent discharge limitations for publicly-owned treatment works. Accordingly, malfunctioning septic systems releasing inadequately treated effluents to aquifers or surface waters are grant eligible for rehabilitation, upgrading, replacement, or other construction measures to correct the problem.

Evidence such as a direct septic discharge plume into a lake or the leakage of septic effluent to ground surfaces is acceptable evidence of septic systems failure where such failures can be attributed to specific systems. Undersized septic tanks to which insufficient treatment can be attributed or in areas where substantial failures have previously occurred can be replaced by grant-funded rehabilitation and upgrading where the need and cost-effectiveness are documented.

Mere ruling by shoreline management acts that septic systems are not in compliance along a particular lakeshore where none or a small proportion of them are having a perceptible water quality impact is not sufficient to grant-fund their replacement in total.

The use of PRM 78-9, "Funding of Sewage Collection System Projects," for determination of eligibility of small wastewater systems for grant funding was not intended by EPA. PRM 78-9 criteria concern the funding of collector sewers and the requirement for consideration of alternative systems in the cost-effectiveness analysis for sewer projects. PRM 79-8, "Small Wastewater Systems" and 40 CFR 35.918 provide guidance for funding of small alternative systems. The following policy statements reflect the above two references, Appendices A and E, 40 CFR 35, and 40 CFR 35.918-1(e):

a. Alternative wastewater treatment systems for small communities (communities with population of 3,500 or less or highly dispersed sections of larger municipalities) are specifically exempted from designation as collector sewers and do not come under collector sewer policy. Accordingly, as alternatives, pressure, vacuum and small-diameter gravity sewers in small communities are eligible for 85 percent grants and funding from the 4 percent and

2 percent set asides. These sewers should therefore be classified as alternative systems for priority and funding eligibility purposes. Low pressure or small-diameter gravity sewers connecting grinder or effluent pumps to treatment and disposal units are a part of a small system and eligible for grant funding as an alternative. (PRM 79-8, 40 CFR 35 Appendices A and E.)

b. EPA considers trucks and other capital equipment required for servicing of the systems such as septage pumping trucks and/or dewatered residue haul vehicles as integral portions of treatment works and therefore grant eligible (PRM 79-8, section III 2(a)). These vehicles are eligible for grant funding whether or not the small systems serviced have been constructed with grant funds.

The small community is defined by 40 CFR 35.915.1(e) as any municipality with a population of 3,500 or less or highly dispersed sections of larger municipalities as determined by the Regional Administrator. In regard to the first provision, any municipality consisting of a single public body (town, city, borough, township, etc.) with an existing population of 3,500 or less qualifies. Moreover, any public body with a population of 3,500 or less and included within the purview of an intermunicipal agency may qualify. The second provision gives the Regional Administrator a wide latitude for including within the small community definition outlying more sparsely developed portions of larger municipalities. If nonconventional systems are planned for certain sparsely developed jurisdictions within a larger grantee municipality (existing population over 3,500), then each of these jurisdictions could be defined as a small community for the purpose of alternative system funding. For this purpose, we suggest that any such area with a density of two households or less per acre could be considered sparsely developed. This density criterion differs from the one household per two acre criterion used in the collector system funding policy (PRM 78-9). The reason for the difference is that the latter is used for the quite different purpose of indicating where conventional gravity collection systems are not likely to be cost-effective. We anticipate that under the criteria suggested above, pressure sewers would normally qualify as alternative systems and be eligible for 85 percent funding where cost-effective.

The two households or less per acre criterion is suggested only as a means of defining "highly dispersed sections of larger municipalities" and thus a small community. That criterion should not be construed as a statement of Agency policy that if an area has a density of two households or less per acre, it is automatically a highly dispersed section of a larger municipality. In accordance with the Construction Grants regulations, the Regional Administrator will make that final determination. A decision that an area is a small community will permit use of 4 percent set aside funds for project alternative systems.

In some instances not fully proven alternative conveyance systems, particularly small-diameter gravity sewers carrying septic tank effluent or effluent pump pressure systems may offer cost or energy savings advantages. These advantages may qualify the project as "innovative."

When comparing small alternative wastewater systems including pressure sewers with collection systems in the cost-effective analysis, the total present worth cost of each alternative must include all costs, both eligible and ineligible, for construction including future replacements and O&M. These costs include those for service lines from the user to collector, connection fees and service to the alternative system.

If jurisdictions within a grantee municipality over 3,500 in population are not "sparsely" populated, on an area-by-area basis, then pressure sewers, vacuum sewers, and small-diameter sewers are not eligible for the increase in the grant from 75 to 85 percent, even if they are cost-effective. They may be eligible, however, for a 75 percent grant from the state's regular allotment if they conform with the Agency's regulations and policies for collector sewers.

cc: WDD's Regions I-IV
VI - X

ATTACHMENT "C"

MAUREEN A. McCREADY
ATTORNEY AT LAW
1260 DELAWARE AVENUE
BUFFALO, NEW YORK 14209
AREA CODE 716
884-1410

September 7, 1979

Mr. John Ray
Executive Director
4401 Walden Avenue
Utilities Contractors Assoc.
Lancaster, New York, 14086

RE: Grinder Pump/Low Pressure Sewer

Dear Mr. Ray:

As you know from our recent telephone conversation, I represent the Creek-side-Irvington Homeowners Association, in their battle against the installation of grinder pump/low pressure sewers (GPU) in the Creekside-Irvington area of the Town of Tonawanda.

After thoroughly exhausting all avenues of possible resolution with the Town of Tonawanda Town Board and Theodore Krehbiel, Town Engineer, the New York State Department of Environmental Conservation (DEC) and the United States Environmental Protection Agency(EPA), we have brought a lawsuit against all the above named parties in U. S. Federal Court. At this writing all parties have been served with a large packet of moving papers and voluminous exhibits. We are scheduled to appear before U.S. District Court, Judge John T. Elfvin, 9 A.M. Monday, September 10, 1979 to argue my motion for a preliminary injunction. We seek to have all construction enjoined until the case is tried.

Basically, the positions of the parties are as follows: The Homeowners object to the authorization of 75% Federal funds because they claim that the original cost analysis, on which the funding was based, was seriously biased by Theodore Krehbiel to show the GPU system more cost effective than a gravity system. The Homeowners seek to have the Court declare the funding decision to be an abuse of administrative discretion and further they seek to have the Court order EPA to fully fund a gravity sewer.

Mr. Krehbiel says his cost study was good engineering practice. He says, yes there were mistakes, but that he was pressured for time and the study is only supposed to be an estimate.

The Town Board says they stand behind Mr. Krehbiel. Because they are not experts, they say they must rely on their engineer.

DEC says that GPU is a good system. They can't understand why the Homeowners don't want the system. DEC further says, they can't actually add and subtract the numbers in a cost study. They say, if they did that, no projects would ever get funded.

EPA says, they don't care which system is installed. They conceded the cost study errors we pointed out. They offered to transfer the remaining GPU funds to a gravity project. The Town rejected that idea.

The issues in this case are important, I believe. I think it is appalling that the Town Board ignaored, evaded, deceived and misled the Homeowners from the beginning of this project. Why wasit so important to the Town Board and to Theodore Krehbiel that a GPU system be installed? EPA would have funded a gravity system with 75% Federal funding money. What difference did it make to the Town Board and Krehbiel whether a GPU or gravity system was installed? Bear in mind there are approximately 200 affected homeowners and there is virtual unanimous opposition to the GPU system. Only the Board and Krehbiel want the GPU.

Secondly, even the Federal Government literature on GPU systems, states that gravity is a better system. Also, in talking about GPU systems, the Federal Government literature assumes it will be used in conjuntion with a septic system. It is clearly not the intent of GPU technology to replace gravity systems with GPU's. We are all familiar with the many negative features of the GPU system and the Homeowners oppose the system for those reasons.

Lastly, the Homeowners contend the entire Federal sewer funding procedure is a sham. The funding is based on a cost study which cost compares two alternative sewer systems. The most cost effective is the system to be funded. But, when the actual construction takes place, the feds pay for 75% of whatever the real cost is; even if that cost is more than the rejected alternative. This procedure encourages people like Krehbiel to inflate gravity and deflat the cost of GPU, knowing that in the end the feds will pay anyway.

As you know, the folks in Cambria, Pendleton, Wheatfield, and Lewiston are up in arms because Krehbiel is pushing GPU's on them, despite their loud and unanimous opposition.

The Homeowners, I represent need help in facing all these levels of Government. We have to convince Judge Elfvin, that we are not crackpots causing trouble. We have to show him that other people in our community with expertise in this field agree with our opposition to GPU.

I am requesting that your Board of Directors authorize your lawyer to confer with me on this case and for your organization to submit an Amicus Brief on our behalf. Further, any technical help you could give us would be very much appreciated.

The Homeowners and I shall await your decision. If you have any questions or need additional information, please do not hesitate to contact me.

Very truly yours,

Maureen A. McCready

MAMcC:an

Niagara Frontier
UTILITY
CONTRACTORS
Association, Inc.
4401 Walden Avenue
Lancaster, New York 14086 Phone 686-3456

September 13th, 1979

Maureen A. McCready Esq.
Attorney At Law
1260 Delaware Avenue
Buffalo, New York 14209

Dear Maureen:

I received your September 7th letter concerning your client's lawsuit over the grinder pump-pressure sewer issue and am forwarding a copy of it to our President and Contractor Members so that our Membership is in a position to formulate a policy decision at our September 20th Membership Meeting.

Permit me to write it, certainly, is a distinct pleasure for Western New York's Number One construction association to engage in dialogue with such a nice Irish lass working her way through the high and lofty confines of the legal profession.

Cordially,

John

John J. May
Executive Director

Mr. PINKSTON. Mr. Chairman, members of the committee, my name is Gorman Pinkston. I am president of the Atlantic Utilities Construction, Inc., Portsmouth, Va., and I am chairman of the National Utility Contractors Association's Construction Grants Committee.

With me is Dr. Robert Sansom, NUCA's technical consultant. He is a former Assistant Administrator of EPA, and now is president of Energy and Environmental Analysis.

I wish to thank the committee and you, the chairman, for this opportunity to testify.

I appreciate your including our full written statement in the hearing record, and will summarize our observations and recommendations.

NUCA believes the construction grants program being administered by EPA is now a reasonable program, but stability is what the program needs at this time. The timely operation of the program is being threatened by costly regulations which collectively slow it down. These include 205 uncertainties, minority business enterprise goals, the poor handling of public participation, retroactive application of regulations, and EPA's innovative and alternative policy.

We will explain our concerns in these areas as well as make recommendations.

The 205 concern, NUCA agrees with State management of the program. However, State uncertainties over Federal funding inhibits State participation. We believe a partial solution would be multiyear funding.

With regard to public participation, NUCA believes that the public must be involved very early on in consideration of solutions for the water and sewage problems. On a number of occasions this has not been the case.

We believe EPA and local governments should make every reasonable effort to clear any environmental concerns as early as possible in the grants process, to enable the process to work smoothly.

With regard to retroactive application of regulations, these impede the progress of pending construction projects, often sending step 2 and step 3 grants back to step 1.

EPA's Deputy Administrator, Barbara Blum, has promised no regulations would be applied retroactively to step 3 projects. We have not seen the policy statement on this, and feel it must be forthcoming.

Innovative and alternative policy. We would like to share with this committee the results of a study, that NUCA conducted.

EPA's intention, in formulating this policy, which is biased against collection systems, was to encourage economical and reliable waste water disposal technologies in small communities. However, this policy places a severe burden on grantees, applicants, and reviewers creating a potentially dangerous delay in mid-process.

NUCA has no quarrel with encouraging innovative and alternative technologies as Congress has suggested. Our argument is with the absence of a detailed cost analysis of the various alternatives.

EPA has never demonstrated the need for cost analysis at such high population densities, as 10 people per acre.

Dr. Sansom is here, and will be glad to elaborate on our concerns.

Other general objections we have are the apparent misinterpretation of congressional intent, use of the program for no-growth planning, use of the program for social purposes, and overzealous regulation writing.

In closing, NUCA would like to make a few management suggestions. The Oversight and Review Committee should insist that EPA conduct a thorough and systematic evaluation of the rules and regulations affecting the construction grants program, to see just how long each existing rule or regulation delays the program implementation, and what modifications could be made to clear up the delays.

Further, we would like to see the committee instruct the agency to evaluate the impact of each rule and regulation prior to the issuance of that edict.

In conclusion, the National Utility Contractors Association would like to go on record as not endorsing any major legislative changes in the clean water program at this time. The possible exception would be the Cleveland-Wright two-tier funding mechanism, which we believe is necessary, since the State cannot rely on adequate appropriations on a yearly basis.

In my business we deal with machines. We have a rule of thumb, "If it ain't broke, don't fix it." NUCA believes the same rule can be applied to EPA's construction grants program. The construction grants program is not broken, it only needs a few minor adjustments, a businesslike view of the regulatory process. Better management, not a legislative overhaul.

We thank you for allowing us to testify. Dr. Sansom and I will try to answer any questions you may have.

Mr. MINETA [presiding]. Thank you very much, Mr. Pinkston. I would like to expand on your statement about the delays that have been indicated on page 2, the delay that is obviously caused by the 1977 amendments.

It seems to me that the 1977 amendments were really to try and hurry up the process, to try and make it function better. I was wondering if you could elaborate on this—about the delays that are being caused by the 1977 amendments.

Mr. PINKSTON. With regard to the 205 situation, which is the State's management, the States do not know from year to year what the funding will be. They are reluctant to give it staff up to a point where they cannot be funded, cannot be supported,

With regard to the minority business enterprises, there are not enough qualified minority firms in the construction field to carry out the work. We are having a terrible time finding such firms and we have to go out frequently to try to promote contractors and put people in business, to develop firms to perform the work. The poor handling of public participation; we ourselves have been involved in a project where the public participation got to the point where the job was delayed. There was a qualified low bid but, the job was thrown out again, and the cost went up something like 22 percent.

The innovative studies and anticollector policies are delaying projects. They have prepared cost estimates of future construction, but they do not actually go to construction for 4 or 5 years, completely throwing out all cost estimates. Those are some of our problems.

Mr. SANSOM. In looking at the 1977 amendments, I am not aware of any provision that does have the objective of streamlining the performance of the program. In fact, I remember the provisions in the 1972 act, and I listed infiltration of inflow, environmental impacts, sewer system studies. Then if you go to the 1977 act, you add public participation, innovative technologies, and so on.

So I do not see anything in the legislation, and I said so at the time before the Senate, that promotes the efficiency of the program. In fact, if you look at section 201(g)(5), which is the—and you can read it for yourself, but "The Administrator shall not make grants unless the grant applicant has demonstrated that wastewater treatment process"—so forth and so on. I do not see anything in that provision and I could similarly read the language in the other section that is dedicated to the expeditious achievement of clean water which is what seemed to have gotten left out.

Mr. MINETA. I was referring to consolidation of steps 2 and 3, and the Cleveland-Wright amendment for State management assistance. Some of these things that were supposed to really speed up the process and make it something——

Mr. SANSOM. I think the issue of the delegation issue to States, which has been alluded to many times, but as somebody said surveys have shown that the States were no better in getting these implemented. Some States are better and some are worse.

Mr. MINETA. Suppose we were to change the legislation to, say, 2 percent of the authorization rather than 2 percent of the appropriated funds?

Mr. SANSOM. That would help. There is no doubt that moving the things toward the State level is a better approach, but I think what the gentleman from the engineering group said, as long as you are moving the regulations there, too, the opportunities for delay remain. If you just read the EPA program guidance memorandums that are attached to the detailed testimony that Mr. Pinkston has, I defy you to explain to any reasonable man what it all means.

If that same problem exists at the State level, you are just going to have more frustrated but generally lower paid people trying to cope with the same set of problems that the Federal Government has.

Mr. MINETA. Mr. Pinkston, you expressed concerns about the great progress in the program and the problems of projects being delayed in the step 1 and 2 planning and design phases, which prompts me to ask are you experiencing a shortage of projects ready to bid or is there enough work to bid on?

Mr. PINKSTON. In our area of Virginia, the bid list has gone from five prime contractors on a job we bid on, to, well on a job we bid today, there are 27 sets of plans out. That shows that there are a lot of people out looking for work.

A few months ago, there were only five people looking.

Mr. MINETA. Despite the problems, at least you are indicating that there is a shortage of work to be bid on or even the number of people who are anxious to obtain an award for a contract?

Mr. PINKSTON. There are more people out looking for jobs. There is not the volume of work.

Mr. MINETA. There is not the volume of work?

Mr. PINKSTON. There is not.

Mr. MINETA. So, because of that, everyone starts zeroing in on those few bids that are available?

Mr. PINKSTON. That is correct.

Mr. MINETA. Fine. Thank you. Mr. Clinger.

Mr. CLINGER. Thank you, Mr. Chairman.

You said that the innovative technologies provisions of the 1977 amendments may be dangerous.

I wonder if you could give us some examples. Do you have any examples where this requirement affects a potential grantee adversely by this requirement?

Mr. SANSOM. Yes. If you look at the detailed testimony, there is an example of a specific city in the town of Towanda where the innovative and alternative—and the word "dangerous" is not one that I would use, but it is a factor in the delays. I think that is the main focus of my concern, that there is an effort to force "innovative and alternative" on the community against the citizens' views and everything else because of the way this interpretation has been interpreted.

There is another document from the State of Michigan, where there is bias toward non-collector-based technologies. Another consideration that the Congress should be sensitive to is that the Congress wrote this provision, but I am aware of no analysis that was before the Congress or that EPA has done subsequently. These show that these technologies are cost-effective which is another provision that the grants are reviewed against.

In our study we looked at the energy consumption of innovative and alternative technologies. We are talking about technologies in lieu of collector system treatment. Whereas the testimony today was based on more efficient innovative technologies in the plants themselves.

I think you have to separate the two issues. In the listing of the energy consumption technologies, there is more energy consumed than the basic gravity collector system that is in effect now. I am just saying that innovative and alternative has a nice ring, but what are the facts and what is cost-effective for the communities?

Mr. CLINGER. Because we did have earlier testimony that seemed to indicate that there was not much innovative or alternative work being done. Generally we were following the lines of least resistance, taking the established policy on the shelf and implementing.

Mr. SANSOM. That is right. But it was focused on the treatment plant technology. One of the things that having gone through the battle of land treatment where the Congress wanted very much to go for land treatment, and I very much agree, having had that provision to implement a review project for land treatments, the difficulty is the fallacies of composition. There are cases where land treatment is a good idea. But if EPA runs the program as is and insists that provision should apply to all cases and you stack

seven more on there, then you have the delays that you ought to try to understand today.

That is the issue. And what people said is let the flexibility reside in the local arena and have a more general review of those criteria as in the case of FmHA program rather than the detailed regulations and the detailed reviews that EPA is now undertaking.

Mr. CLINGER. Mr. Pinkston, when the project finally laboriously arrives at the point where you start building something, are there procedural delays imposed upon you during the construction period by virtue of the act or regulation?

Mr. PINKSTON. The only problem we have is after we get it under construction is one of having someone handling some small amount of paperwork and then inspection of it.

Mr. CLINGER. During the construction process itself, that is just like any other construction project. You are not really impacted by any of the regulatory requirements?

Mr. PINKSTON. No.

Mr. CLINGER. So that the delays that we are dealing with here are all in the planning stage, not in the equipment stage?

I guess that is all.

Mr. MINETA. Mr. Oberstar?

Mr. OBERSTAR. Thank you, Mr. Chairman.

Dr. Sansom, do you have any quarrel with the substantive requirements that EPA look at or ask the States and municipalities to look at alternative, innovative technologies? Is that a worthy social and technological goal for this program?

Mr. SANSOM. I would say not if it attains the holdup of clean water for 6 months.

Mr. OBERSTAR. That is a separate question, whether it holds up or not. I will come to that.

Mr. SANSOM. The question is how it is implemented. For example, EPA said on a block review basis. In areas with density of 10 or less, these reviews should be undertaken as well as in large metropolitan areas and cities in rural situations of a greater density of 1.7 persons per acre. So you have that window in there that you are doing these reviews. Our analysis shows that that should be 1.7 to 5 rather than to 10.

Mr. OBERSTAR. Your quarrel is how it is carried out with EPA rather than the goal itself?

Mr. SANSOM. Sure.

Mr. OBERSTAR. You recall that, and it was our colleague from California, Mr. Clausen, who was the author of this provision that is now law, and very probably and rightly so, part of an overall effort of this committee to push EPA toward new ideas, not resting on old tested, time proven, perhaps sometimes inadequate, technology.

Communities—well, into the new ideas that might be more effective than what we had, but you are saying that it is the way that EPA has carried this out rather than the policy objective itself?

Mr. SANSOM. I think I am saying a little more than that.

You recall that I used to run the air program, too, and air pollution followed the industrial revolution. Water pollution was a problem in Europe. The view of someone walking in and saying there is an alternative way of handling this reminds me of the land

issue again, because when that came up before the Congress in 1972, I recall that somebody on my staff brought me a study done in Philadelphia in 1916 where they did have a land treatment system, and they were moving to the conventional treatment technologies.

I think that the problem that we are dealing with here has been around a long time, and I applaud the engineer who went to Europe where they have a more dense population, therefore you might learn something, or in Japan as in air pollution. But the idea that there is going to be some innovative technology done in here to reduce your cost 40 percent, while you increase your cost 40 percent looking for it, that, I think, is a mistake.

Mr. OBERSTAR. Now, the second part of that question is: How long should it take to inquire into alternative technology for, let us say, a town of 25,000 population?

Mr. SANSOM. I think if——

Mr. OBERSTAR. How big an effort is that?

Mr. SANSOM. Well, EPA's regs say a block-by-block review. As long as that is in there—it is not in the law, but it is in the regulations and guidelines.

If you take a reasonably sized segment of a metropolitan area, say 200,000 or 300,000, this is at least going to take 6 months and probably going to take 10 or 12. That is the problem.

I think the administrative flexibility says to the satisfaction of the administrator. I told EPA you cannot lose on that in court.

But EPA is interpreting this as——

Mr OBERSTAR. Who cooked up the block-by-block review, and when was that done?

Mr. SANSOM. That was done by Mr. Jorling and Mr. Cook under this administration. I asked them the basis for the 10 population density cutoff, and they said they did not have it.

I think they should have told the Congress they did not have any basis.

Mr. OBERSTAR. Does that have to be prescribed in regulation as like a pharmacist's accuracy, or left to judgment?

Mr. SANSOM. It can be left to judgment. The checklist that FmHA uses is an acceptable approach. Under the old cost-effective regulations, alternatives have to be considered.

Mr. OBERSTAR. I think there is a very considerable difference in designing a sewage treatment plant for communities, such as we have in my district, with which you may be familiar with, which is on the edge of boundary waters canoe area, wilderness area, lakes, and woodlands, where water quality is about as it was when the glaciers last moved out of our territory.

In designing a sewage treatment plant for a community that is in the middle of farmland territory, or on the edge of iron ore mines in my district, I do not mean to be parochial, it does not take an awful lot of administrative effort to say, you folks should do something very different up there in the lake country. You folks here really should be able to proceed with conventional projects.

So I am thinking that that time frame should not be months, but a matter of a few hours' judgment on the part of the State and local officials, and not prescribed in total by EPA regulations.

Mr. SANSOM. I agree with that.

I guess the difficulty is having seen so many efforts by Congress blossom into major detailed regulatory programs, you become skeptical of the Congress to even move in a certain direction without imbalancing the whole program. You have bureaucrats there, they are getting paid, and they like to take things seriously.

Mr. OBERSTAR. You also have people looking over their shoulders, such as GAO, OMB, and these other agencies with which you dealt.

Mr. SANSOM. I like the suggestion of holding back a portion of the engineers' fee until the project was completed. I just would add that to the EPA bureaucrats as well.

Mr. OBERSTAR. We have done that, just a few weeks ago, when we passed the appropriations bills. That is the kind of thing that I think this whole subcommittee inquiry was directed toward, finding where the fat is, and where you can cut it without shortcutting the policy on objectives.

I think your response indicates to me that you agree with the policy objective; you disagree with the way it is implemented. And I think the implementation is built into a modest amount of delay in the program.

Mr. SANSOM. You pointed to the highway program in 1964, all of these thousands of miles, and the public can understand them. They ride on the benefits. The difficulty is the countervailing interest in clean water has been lost in the maze of regulations to suboptimize the programs against other goals.

I remember when Ruckelshaus was arguing with Muskie, and Muskie said, you can do it in 1979. Ruckelshaus said, there is no way I can do it in 1981. But no one in EPA seems to be worried about clean water.

Congressman Roe said, after all, the objective is to spend the money to treat water to clean up the navigable waters. Where does that objective come into the management of the program? It is not there anymore.

When the step 1 goes from 2 to 4 years, you know somebody ought to say, now if it goes longer than 2 years, unless there is fraud or 20-percent increase in costs because of waste, you go ahead with it.

There has to be better management in the program and better deadlines.

Mr. CLEVELAND. Will the gentleman yield on that point?

Mr. OBERSTAR. Yes; I will be happy to yield.

Mr. CLEVELAND. You spoke as if the great success of the highway program was because the people could see it, people used it.

That is perfectly true, but there was another ingredient in there, another important factor in there. The Federal Highway Administration did not try to design, and did not try to build, and did not try to construct that highway program; and that is why you have got one.

Mr. SANSOM. I agree fully. My brother is the commissioner of transportation in the State of Tennessee, and he spends all that money, and I have talked to him about it.

Mr. CLEVELAND. That is what this committee is trying to do over the dead body of EPA, over the dead body of all the environmentalists. We have been trying to shake this program loose, so the State water pollution control people would have the same construction.

Thank you.

Mr. OBERSTAR. The gentleman speaks with conviction.

Mr. CLEVELAND. Well, it is based on 8 years of these hearings, in which we have seen this program—first of all we started out with that big blast in 1972, and the construction came to a grinding halt.

Then we had, when Jim Wright was sitting there where Mr. Mineta is sitting, now we had these hearings, when we heard all of this same talk in 1973 and 1974 and 1975 and we tripped over the dead body again of EPA and the environmentalists to get some sense in 1975. We had a little sense in it, but EPA sandbagged us all the time, and the environmentalists are off, they are on the nuclear trail now

Mr. OBERSTAR. I think the——

Mr. CLEVELAND. I do speak with great conviction and a tinge of bitterness.

Mr. OBERSTAR. The record will show, though, that under the accelerated public works program, 1962, 1963, 1964, which was not as fast track a program as the local public works act fashioned, we built more sewage treatment plants in this country than before it.

So there are ways of building these plants and building them fast. It does get exasperating for us, but I would like to come back and get to your suggestion of some deadlines.

Speaking from your previous experience and your present viewpoint in the testimony just preceding yours, there were suggestions for either an overall 90-day time constraint, or varying time constraints, depending on the flexibility of the project.

My question is: Will that work? And in responding, I would like you to reflect on the 1972 act, which if my recollection is correct, there were 130 deadlines written into the law, many of which were at the request of the Senate; some came out of this body in an effort to put a straitjacket on EPA and expedite the program by having deadlines.

My recollection is that not a single one of those deadlines was ever met. They were unrealistic. EPA could not, or in some cases, simply did not meet them.

Mr. SANSOM. I apologize for the deadlines. Somebody asked me a question: What is the difference of being over in the consulting business? And it is just those deadlines. The deadlines have an effect on the people who run the programs. Everytime it comes to fiscal year, it goes right up.

Deadlines do have an effect. You cannot manage a program without deadlines, and the idea of a 90-day review, if applied, going into the EPA shop as well as the engineering shop, because there are deadlines of the engineers putting them away and salting them away; but deadlines, you have to manage a program with deadlines.

How do you manage anything if you do not have deadlines? Whether there are legislative deadlines, obviously there is a lot of problems for that; but there is no question from a management point of view, there have to be deadlines so that Congress could put a deadline, an overall deadline, on the administrator.

But overriding that, is that this money has to be spent by this date. They will get it out. We did not meet all your deadlines, and

they were impossible; but we worked hard to meet them, and that is the only way you can manage 10,000 people.

Mr. OBERSTAR. Thank you very much. There is a lot to think on there.

Mr. MINETA. Mr. Royer.

Mr. ROYER. Just a couple of questions to follow up on my earlier questions.

I do not know if you gentlemen were here earlier and heard the other testimony.

Do you concur that operating under the EPA rules and regulations, instead of being 1 year, it takes 3 years to 4 years to process?

Mr. SANSOM. I do think there is no doubt what they said is true. EPA's own studies show that the step 1 phase has gone from 1 to 4 years plus, since around 1974.

Mr. ROYER. I have also heard on a couple of occasions an inference that there ought to be some flexibility, and then on the other hand, I see that the Congressional intent really is not being followed.

It seems to me that no matter what is built into our legislation, the intent gets modified. How do you justify the statements that somehow certain times there ought to be flexibility, and others, it does not seem to work that way?

Mr. SANSOM. On balance, it is just not fair for me to say as much as it might sound good, that it was not the Congress fault, that it was EPA's, but the detail in the law invites the delays that have occurred.

I do not think that it is fair to put all the blame on EPA.

Mr. ROYER. Just one last question. Most of the other testimony we heard was pretty negative. There was not much of anything that was said that was too positive. Yet I see your statement here that you feel that construction grant program is alive and well, and that you and the agency have resolved a number of the administrative problems, and that they are now moving toward the business of cleaning up the Nation's waters.

How do you justify statements in contrast to all the testimony that we have heard earlier, and also that you have made?

Mr. SANSOM. I think that what we are talking about here, and as someone developed earlier, it is not the construction phase of the problem. We are talking about a managing problem of reducing this front-end time back to a reasonable dimension.

If you look at the outlays under the program, they went from $3 billion in 1978 to $3.6 billion in 1979. That is real money. You look at the obligation rates, it has gone from $3.2 billion to $3.4 billion. Despite all the problems, you have to go back to the basic issue that the country cannot do everything at once, and it is making some progress in completing these facilities; so I think that is why the basic tone was. Sure, there are problems, but the program is progressing, and we have had another diversion with the 1977 amendments, and I think the thrust of what Mr. Pinkston said, and others, let us not have yet another diversion, but I think it is vigorous oversight that is needed now, and vigorous oversight where EPA——

Mr. CLEVELAND. Will the gentleman yield?

I heard what you are saying, but I still want to be more realistic about this. I know you may be compelled to put some sweet talk in there for EPA, because I assume you do business with them.

Mr. SANSOM. Not this year, in this area.

Mr. CLEVELAND. But the clean water program that we were all bragging about when we wrote our press releases and sold to the public, it was $6 billion a year; $6 billion a year, and you are bragging about $3.4 billion. It went from $6 billion to $5 billion to $4.5 billion, to $4.2 billion and this year they put it to us with $3.4 billion.

That is the Appropriations Committee. You cannot tell me that that is a vote of confidence of the Appropriations Committee. They cut it almost in half.

Mr. SANSOM. Mr. Cleveland, I agree with what you are saying. That is why we are focusing on the deadlines; because EPA has not moved it.

Therefore, the Appropriations Committee looked at your committee and said, there is a credibility problem here. Why do you need another $5 billion? That is the hard facts of it. If the program had moved without these delays, then that appropriation could have been $5 billion.

But we testified before Congressman Ullman, and it was perfectly obvious that looking at the numbers that, with that kind of backlog, the case was very difficult to make.

Mr. CLEVELAND. This is why the program is in much more trouble than either of you realize; it is in much more trouble than people do realize, because what the appropriations committee is looking at is money that has been appropriated or made available through contract authority that has not been obligated.

They are looking at the whole package. Because some of the money that has been appropriated, I think they used a figure of $6 billion that is unobligated and currently available. Then they say, well, we are this year only going to appropriate so much, and it is going to be less and less, and it is going to be a downward figure. You have seen the figure over there, it is right on the board over there, it is going to be down, down, down.

What you do not realize is that you are letting the slow States, slowly but surely stop the whole program again in its tracks.

That is why I think Mr. Royer is right, and that is why I back him up when you put this sweet talk in here about the program, is alive and well.

It is not. It is dying right in front of your eyes, right on the chart up there. I think you guys, to put that kind of language in there, maybe it is good politics, but I do not see what the facts are behind it.

This program is not alive, and it is not well. It is on its downward decline, and next year you can expect an appropriation maybe of about $3 billion, and it is down, down, and down. And the reason that I am sort of upset about this is that there are some States that have ordered communities to go ahead, step 1 and step 2.

They have raised their money, they have been told they have to do it, and now all of a sudden, they are saying the appropriations are not here, wait 1 year, 2 years, 3 years.

If you call that program alive and well, you and I are talking different language.

Mr. SANSOM. You are in a much better position to judge that than I am, the attitude of the Congress.

Mr. CLEVELAND. I assume you wrote the speech; I did not write it.

Mr. SANSOM. No, I did not. But the issue of credibility is a problem, and that goes to two things. One are the plants that are complete, treating effluents. That is an issue that was pointed out earlier that half of them are not. That is one issue.

The second issue is: Is the program operating without unnecessary delays? Clearly, the program is not. So those are the two, the way that I look at the credibility of the program. And I think that we have been very vigorous, and EPA has been vigorous, in opposing the technologies.

So there is no effort here to pat anybody on the back to curry favor. But we are trying to focus on the specific things that are delaying the grants, and to get those moved out of the way. And I think that just, as Mr. Oberstar said, was done on the highway program.

I am not familiar with those details. It is that kind of harassing of, if you will, EPA's Administrator and his staff, that the oversight committees have to do. Otherwise, the program is not going to move.

Mr. ROYER. Mr. Chairman, I might just finish on this note, and hopefully, it might be a little more positive one.

I personally heard enough testimony here, and enough support from the committee members, and I want to congratulate you on having the hearings. I think there were sufficient comments here today and enough members who want to do something about the problem. I would hope, as my colleague here has indicated, that all of us will get together.

I very much intend to pledge my support to the other members of this committee to see that the program gets straightened out, even if it has to go to the extent that was mentioned by our colleagues this morning, abolishing EPA.

Mr. SANSOM. When I heard septic tanks in apartment buildings, I knew we were in trouble.

Mr. MINETA. Mr. Cleveland.

Mr. CLEVELAND. Thank you, Mr. Chairman. I think I have had enough time that I have borrowed here.

I do want to thank the panel for expressing their support for House bill 4113, which attempts to do something at least about this funding problem, and the stability of the States' certification problem.

Thank you.

Mr. OBERSTAR. Mr. Chairman, one final observation. I would like to draw again on Dr. Sansom's experience in this area.

I just wonder if it would not be possible for EPA to undertake a demonstration program, a little different nature.

If you take projects in various categories of size, and put a total time frame around it of maybe a 50-percent reduction in total elapsed time from initial idea to cutting the ribbon for completed projects, do you think that might be something that could be done

administratively, or something that might require legislative direction?

And most importantly, could it be undertaken?

Mr. SANSOM. I think it is a good idea. I think it could work, and I would only amend it by saying that there ought to be a separate short form for small communities that EPA has the administrative ability to do it.

I think it is doable, and it is just a question of cranking up somebody's interest in clean water over there to get it done.

Mr. OBERSTAR. There really is a conflict of laws issued. I think all of these 41 acts which are Federal laws listed in this outline, all of them are directed towards a laudable and noteworthy purpose that the Congress has identified, but which come up against another act that the Congress has enacted, and that is this one here, in order to comply with all these other laudable public purposes, perhaps here delaying further public purpose.

It seems to me there has to be a way to reconcile these public purposes and expedite this, the management of this program, which is so vital to each one of these pieces of legislation, clean air, dangerous species, fish and wildlife coordination; all of that depends on clean water, or interrelated with them.

If we can just, for once prove that a project can be done with—— I guess it is not even a matter of paper shuffling; I guess they massage it down there.

Thank you, Mr. Chairman.

Mr. CLEVELAND. If the gentleman will yield.

I think we have the answer. We got it from that gentleman from Pennsylvania who said that he had something that he was going to complete in 2 years, and the magic word was he was not using Federal money.

Mr. OBERSTAR. I do not know if that is the answer either. I am not convinced that the private sector does it all that fast themselves.

Mr. CLEVELAND. You have a demonstration project right there except you do not like the results.

Mr. MINETA. Just to follow up on that. I was wondering, was there not some effort or thought in 1974 about having some accelerated application form or short form? Was there not some coordination sometime in the past about trying to cut down the processing time as well as the requirements?

Mr. SANSOM. We suggested this, in a study with the utility contractors around that time, but I never knew it had been treated seriously or that EPA——

Mr. MINETA. Maybe it was just discussion.

Mr. SANSOM. I am not aware of it.

Mr. MINETA. But there would not be again any problems given the existing legislation to go ahead and do that administratively, is that correct?

Mr. SANSOM. Yes, that is right.

Mr. MINETA. Now, to the extent that a lot of these problems were, say, caused by the 1977 amendments, to what extent would you say some of these problems existed at the time that you were at EPA?

Was this something that——

Mr. SANSOM. They existed then. A good example is the infiltration and inflow. That provision in the 1972 act said that the Administrator shall not approve a grant subject to excessive infiltration inflow.

I remember going over with Senator Muskie's staff and they said go ahead and run this program. I said it says shall not. It does not say in his judgment. It says shall not.

So those problems existed then. They stretched out the program. There was a snag in the obligation and the expenditure rate, and I think the 1977 act added another handful of those provisions and they just need to be pared back judiciously, and add the concept of a checklist, of doing it in an expeditious way. EPA ought to be told that you want to see a 50-percent reduction in the page numbers of regulations implementing this program and you do not care which 50 percent it is, but you want it by that amount and they can do it. They have the authority to do it and they can do it.

Mr. MINETA. Mr. Pinkston, earlier I asked questions about the number of projects being available for bid. Is part of that reduction of volume of work due to the close of the construction season in some parts of the country, or the crunch of EPA regulations and rate of obligations?

Mr. PINKSTON. EPA obligations. We work year round.

Mr. MINETA. Would you say that this has occurred nationally?

Mr. PINKSTON. I would think so, yes.

Mr. MINETA. Well, I would like to thank you gentlemen.

Mr. SANSOM. Could I make one comment here?

Mr. MINETA. Certainly.

Mr. SANSOM. In the attachment to the testimony by the engineers, there is a letter sent to Senator Bellmon, October 10, 1979, from Mr. Costle, and I think attached to it is a list of EPA's view of these delays and so on. And I just want to warn the committee here that citing a few examples of cost savings is not demonstrating an aggregate appreciation for what each of these programs do to the program, but I am sure you can find an example where that review saved some money. That is not the point.

What is the aggregate appreciation? What does it do to the whole program, not to one project?

Mr. OBERSTAR. If the chairman will yield on that point.

Coming back to the point you raised about infiltration inflow analysis. I recall that very well, having sat as a member of the staff at that time through the hearings and the testimony that was offered demonstrated case after case—I could point to one in my own district where, without I. & I., $6 million project would have been required to process something like 6 million gallons, 7½ million gallons of water for a town of 4,500 because the city sewer system was a great groundwater collection system.

After I. & I., after about $150,000 correcting all the leaks and plugging up the faulty sewers, they built a $2 million plant to treat properly 1½ million gallons of total sewer system flow. Well, there again, coming back to this question of conflict of law, Congress said we are going to save money if we conduct the I. & I. analysis before building an oversized plant.

Mr. SANSOM. I think what the engineers were saying is that those objectives have got to be dealt with with flexibility, with

professional judgment; more of a checklist approach than the detailed how exactly do you put the TV camera in the sewer pipe and how exactly you do the calculation. You do a block-by-block review. That is ludicrous.

You do not need all that. In the attachment to the engineers, this is attachment A-1, they itemized—EPA is trying to arrive at an aggregate appreciation for what is causing the delay. It is summarized in attachments and you will see inflow is 14.5 percent of the total delay.

So it is still a big issue in this. The alternatives are 4.3 percent. The issue is just like when they come in and say we are only 1 percent, why do you not examine us? If 100 come in, we are not going to exempt any of you. You have to find out where to start, and I think it is a plotting task to get it done.

Mr. MINETA. Well, Mr. Pinkston and Dr. Sansom, I want to thank you very, very much for your very fine testimony, and to NUCA for making both of you available to the subcommittee. Thank you very much.

If there are no further questions, the subcommittee will stand adjourned until 10 a.m., tomorrow morning, here in room 2253, at which time we will hear the testimony from representatives of the States of Texas and New Hampshire, and also the Rockford, Ill., sanitary district.

The committee stands recessed.

[Whereupon, at 4:15 p.m., the subcommittee recessed, to reconvene at 10 a.m., Wednesday, October 31, 1979.]

# IMPLEMENTATION OF THE FEDERAL WATER POLLUTION CONTROL ACT (THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANTS PROGRAM AND THE STATE MANAGEMENT ASSISTANCE PROGRAM)

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**WEDNESDAY, OCTOBER 31, 1979**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND REVIEW,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 10:13 a.m., in room 2253, Rayburn House Office Building, Hon. Elliott Levitas presiding.

Mr. LEVITAS. The Subcommittee on Oversight and Review of the Committee on Public Works and Transportation will come to order.

Today the subcommittee will continue its hearings to review the implementation of the Federal Water Pollution Control Act and our examination of the municipal wastewater treatment construction grants program and the State management assistance program.

The first two witnesses today will be a panel of State agency administrators. At this time, I would like to ask the witnesses to come to the witness table.

Mr. Lindsay M. Collins, assistant chief engineer-administrator, New Hampshire Water Supply and Pollution Control Commission, Concord, N.H. and Mr. Emory G. Long, director, Construction Grants and Water Quality Planning Division, Texas Department of Water Resources, Austin, Tex.

Gentlemen, if you will please come forward.

Before you take your seats, I would like to administer the oath to you. Raise your right hands.

Do you solemnly swear that the testimony you will give before the subcommittee will be the truth, the whole truth and nothing but the truth, so help you, God?

Mr. COLLINS. I do.

Mr. LONG. I do.

## TESTIMONY OF PANEL OF STATE AGENCY ADMINISTRATORS CONSISTING OF LINDSAY M. COLLINS, P.E., ASSISTANT CHIEF ENGINEER-ADMINISTRATOR, NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION, CONCORD, N.H.; AND EMORY G. LONG, DIRECTOR, CONSTRUCTION GRANTS AND WATER QUALITY PLANNING DIVISION, TEXAS DEPARTMENT OF WATER RESOURCES, AUSTIN, TEX.

Mr. LEVITAS. Please take your seat and welcome to the subcommittee today for the continuation of these very important hearings.

Mr. Collins if you would proceed. We have your full written statement. It will, without objection, be made a part of the record. If you will proceed with a summary of your remarks.

[The following was received for the record:]

PRESENTATION

TO THE

HOUSE PUBLIC WORKS OVERSIGHT SUB-COMMITTEE

by

Lindsay M. Collins, P.E.
Assistant Chief Engineer-Administrator

NEW HAMPSHIRE WATER SUPPLY & POLLUTION CONTROL COMMISSION

October 31, 1979

Mr. Chairman and Members of the Committee -

My name is Lindsay M. Collins. I am an Assistant Chief Engineer for the New Hampshire Water Supply and Pollution Control Commission, and I appear at the invitation of the Committee to present a statement regarding the status of the New Hampshire water pollution control program. I am extremely pleased to have this opportunity to bring directly to your attention the level of progress which has been achieved in New Hampshire. In our opinion, the record of accomplishment is an outstanding one and a tribute to the Executive and Legislative branches of State Government which, since the early 1950's, have focused a great deal of attention as well as a large share of its financial resources on abating pollution problems throughout the state.

It has been suggested that in presenting the New Hampshire story to this Committee, certain areas of activity should be emphasized. These can be identified as -

(1) an overall review of the construction grants program as it has developed in the State of New Hampshire, with some emphasis on the amounts of funds committed to the program;

(2) an examination of those factors, both positive and negative, which have affected the rate of progress in controlling pollution;

(3) an analysis of 106 funding where it has been applied within the program, both in the past and at the present time;

(4) a concise statement on the status of the 205g program (Cleveland-Wright Delegation), again with emphasis on the financial aspects together with implementation of the delegated functions;

(5) recommendations for acceleration of the Construction Grants Program;

(6) identification of Cleveland-Wright duties being performed by the Commission prior to the recent delegation of all Cleveland-Wright functions to the State of New Hampshire; and

(7) comments concerning two-tier legislation as it affects not only project funding but the Construction-Management Grants Program.

The State of New Hampshire through its Water Supply and Pollution Control Commission has been very active in the Construction Grants Program for over 20 years. Since the passage of PL 92-500, tremendous progress has been made in the pollution abatement field. The following tables illustrate the progressiveness of the state to comply as soon as possible with the Federal requirements. This activity is indicated by the following tables comparing New Hampshire to the totals of Region I. It should be noted that New Hampshire's allocation is only 12.07% of the allocation for Region I.

TABLE I - Total Number of Active Projects 10/11/79

| | Number | % of Region I | % of $ Region I |
|---|---|---|---|
| Step 1 | 21 | 6.8 | 3.6 |
| Step 2 | 41 | 24.5 | 17.7 |
| Step 3 | 43 | 13.4 | 12.1 |
| All Steps | 105 | 13.2 | 12.1 |

TABLE II - Total Number of PL 92-500 Completed Projects 10/11/79

| | Number | % of Region I | % of $ Region I |
|---|---|---|---|
| Step 1 | 41 | 47.7 | 40.6 |
| Step 2 | 34 | 29.1 | 26.4 |
| Step 3 | 26 | 24.8 | 15.9 |
| All Steps | 101 | 32.8 | 18.2 |

TABLE III - Total Number of Substantially Completed Projects (Not Closed Out but Over 90% Completed). For Totals to be Added to Table II and Deducted from Table I)

| | Number | % of Total PL 92-500 Projects Completed or Substantially Completed |
|---|---|---|
| Step 1 | 15 | 90.3 |
| Step 2 | 35 | 92.0 |
| Step 3 | 13 | 56.5 |
| All Steps | 63 | 79.6 |

TABLE IV - Projects Pending Grants

| | Grants at EPA | Grants at State |
|---|---|---|
| Step 1 | 1 | 2 |
| Step 2 | 1 | 4 |
| Step 3 | 4 | 14 |

TABLE V - Obligation of EPA, State of New Hampshire and Local Funds Under PL 92-500 Through mid-September 1979

| EPA | STATE | LOCAL | TOTAL |
|---|---|---|---|
| $221,257,597 | $84,056,408 | $44,384,846 | $349,698,851 |
| 63.3% | 24.0% | 12.7% | 100% |

Again, the data shown in the previous tables reveal that New Hampshire's aggressive management activities in the water pollution abatement program have resulted in very substantial progress compared to the Region and also with all states in the Nation.

There are several significant factors which have enabled New Hampshire to progress as rapidly as it has on this program, some of which are as follows:

1. In 1967, the New Hampshire Legislature enacted RSA 149:4, XIII requiring our agency to co-sign all municipal engineering services contracts relating to pollution control projects. This factor alone has resulted in major economies in the area of consulting engineering fees. (See Appendix 1 for savings.)
2. After passage of PL 92-500 and issuance of implementing regulations, our agency believed EPA and proceeded to advise municipalities to undertake Step 1 and Step 2 projects. By the fall of 1975, 25 Step 1 and 15 Step 2 projects had received Federal grants.
3. Good working relations were established with EPA Region I

Construction Grants staff. In May of 1975, a tracking system for all municipal projects was established. The basis for the tracking system is the engineering services contract. The system requires no computer operations and minimal staff time is involved in producing the report on a monthly basis. In contrast, an editorial in the October 1979 "Water & Wastes Engineering" magazine published excerpts from recent memorandum from former Assistant Administrator Jorling to the ten Regional Administrators relating to the poor quality of EPA's GICS data and the excessive number of errors. We utilize GICS reports forwarded to us by Region I and have pointed out errors or omissions on a number of occasions. Copies of our latest tracking system have been submitted as Appendix 2 with this report.

4. The staff has expended considerable time and effort for close coordination and public relations with the municipalities giving assistance in funding procedures, regulation interpretation, and interpretation of application and grant forms.

5. In 1972, as a result of local pressures in the Lakes Region, the New Hampshire Legislature enacted RSA 149-G, under which our agency was made responsible for the design, construction and operation of an interceptor system and regional treatment facility to serve at least eight municipalities in the Winnipesaukee River Basin in central New Hampshire. Despite the fact that this project was subjected to the requirement of having an

63-935 O—80——22

Environmental Impact Statement prepared, Region I EPA permitted design to proceed concurrently on major portions of the project. This decision proved to be a prudent and proper one, as no redesign of any elements of the program was required due to the EIS. Construction of the main interceptor is complete and dedication of the Franklin STP is taking place at this very moment as I am speaking to you. New Hampshire and EPA have processed over 27 separate grants for various portions and steps for this program.

6. RSA 149-G has allowed the Commission to use construction procedures in the Winnipesaukee River Basin Program which have resulted in substantial savings. The interceptor projects were broken into segments sized to encourage smaller contractors to bid; the agency has been utilized for resident engineering and inspection of the projects rather than the design consultant. Enclosed is a brief review of a portion of that program prepared in November 1978 as Appendix 3.

7. Our Commission employed an archeologist to enable fast compliance with regulations. Projects were expedited with relocations in may instances and minimizing the extent and cost of salvage at two locations.

Factors which we considered to have deterred progress on the program are as follows:

1. The most serious slowdowns in the rate of progress of the program is the constant uncertainty as to the avail-

ability and level of Federal funding. Coupled with this are the continued attempts by EPA to siphon-off 201 funds for other programs, witness the multi-purpose projects proposals, the proposed integrated grants legislation, and, most recently, PRM 79-11 which now permits the use of 201 funds for performance of Section 106 waste load allocation studies.

2. EPA's continual use of dates in implementation of new regulations disregards work previously done on specific projects and has resulted in delays to projects. As we have commented to EPA on a number of occasions, we believe that EPA should recognize events rather than dates.

3. The 2% of set-aside for innovative and alternative technology grant increases for FY 1979 and 1980 will be lost to reallotment in New Hampshire due to the inability of EPA to define the terms in a timely manner and with the implementation tied to dates and not events as aforementioned.

4. It has taken over 16 months for EPA Region I counsel to accept the State Attorney General's interpretation of State law with regard to the duties of New Hampshire counties relative to pollution abatement projects. A Step 1 Grant for Rockingham County has been in Region I since June 30, 1978.

The following table shows the Section 106 funding as received by New Hampshire from FY 72 through FY 79 and the amounts expended in each of these fiscal years for functions which are now under the 205g Delegation.

In addition, the percentage of the total Section 106 grants used for "205g" functions is shown. The remaining Section 106 funds were used to supplement state funds for the following functions: enforcement, surveillance, permits, monitoring, non-point source management, water quality management planning, training, and operation and maintenance.

| FY | Section 106 Funds to NH | 106 Funds Expended for What Are Now 205g Functions | % of Total |
|---|---|---|---|
| 72 | $ 97,350 | $ 22,866 | 23.5% |
| 73 | 151,100 | 33,143 | 21.9% |
| 74 | 273,753 | 39,899 | 14.6% |
| 75 | 323,625 | 58,960 | 17.6% |
| 76(1) | 424,545 | 112,150 | 26.4% |
| 77 | 340,000 | 90,080 | 26.5% |
| 78 | 355,900 | 120,310 | 33.8% |
| | $1,966,273 | $477,408 | 24.0% |
| 79 | 355,900 | 62,288 | |

(1) Includes transition quarter

The State of New Hampshire considers the continuation of Section 106 funding an essential factor, and I emphasize the word "essential," in order to be able to complete requirements of PL 92-500 other than those associated with Section 205g.

New Hampshire has received full delegation under Section 205g of the Act in accordance with the agreement signed October 6, 1978 (Appendix 4). The final of the three phases was delegated, effective October 16, 1979, following the review of our one year's work under Phases A and B. The Region made a year-end review in accordance with Section 35.1040(b) and found that the New Hampshire Water Supply and Pollution Control

Commission's performance of delegated functions to be very satisfactory. These functions included:

- Certification of Grant Applications
- Certifying Adequacy of Request for Payments on EPA Projects
- Approval of Use of Force Account
- Approval of Sewer Use Ordinances
- Approval of Plans and Specifications
- Authorizing Award of Construction Contracts
- Approval of Change Orders, Revised Pages and Addenda
- Approval of Operation and Maintenance Manuals
- Conducting Interim and Final Inspections
- Approval of Infiltration/Inflow Analyses
- Approval of Sewer System Evaluation Surveys
- General Program Management such as the Construction Grants Project List

This delegation has enabled New Hampshire to expedite the Construction Grants Program, obligating all of its FY 78 funds and virtually all of the FY 79 funds. In addition, the grantees have been extremely pleased at the speed with which they have received their EPA payments due to our certifying their adequacy.

It should be noted that numerous personnel on our staff other than 205g funded personnel have been used to complete the work under the delegation. The reason for this is simply that we have been fearful of an "up and down" staffing problem which would occur due to unpredictable funding, or even failure to fund, at the Federal level. The state is a prisoner of uncertainty caused by the reason of the funding being tied to appropriations and not authorizations.

In order to streamline and expedite the Construction Grants Program, New Hampshire recommends that funding should be appropriated at least a year in advance so that proper programming can be scheduled. In addition, the construction grants funds should be at least the authorized level and the 205g funds should be at 2% of the authorized level. Assurances that funds will be available to states who have utilized their allocation and are in full compliance with the program should be made to the authorized level.

It is our belief that the program could be expedited if "EPA Washington" would actually delegate more of the decision-making process to other regions so that the partnership between the regions and the states could become truly meaningful. Avoidance of the continual proliferation of regulations also would be of great advantage to the grantees as well as all people involved in the program. The policy of regulating by means of Program Requirements Memorandum (PRM) and Program Operations Memorandum (POM) should be abandoned. In our judgment, both devices are frequently used by the EPA as a means of frustrating the true intent of the Congress. Moreover, this problem seems to stem from the fact that considerable program direction via regulation making is a valuable preoccupation with the present group of decision makers at EPA. We are convinced that there should be a change in this situation by reason of an infusion of top level engineers with solid engineering and construction backgrounds. Individuals with this form of training and experience would go far in the direction of achieving a reasonable balance in the administration of the program at the Federal level.

Prior to the 205g Delegation under the Clean Waters Act of 1977, New Hampshire had a Certification Agreement with EPA Washington dated March 5, 1976 wherein New Hampshire's program, adopted in 1967, for procurement of engineering services was accepted by EPA in lieu of their regulations offering the same or equivalent protection to the grantees (Appendix 5). Prior to and since this Certification Agreement, the state has acted on behalf of the communities in obtaining qualified engineering services at competitive fees. In addition, New Hampshire executed an agreement with Region I dated December 23, 1977 to eliminate duplication of effort in review of documents associated with the Construction Grants Program (Appendix 6). The duties of this agreement were certifications that the following complied with EPA and state regulations in all respects as to administrative and technical adequacy.

a. construction drawings and specifications

b. change orders and addenda

c. operation and maintenance manuals

d. construction inspection

In reality these delegations were duties which were competently performed by this agency prior to the agreement. The agreement for these duties was made to expedite the entire program. New Hampshire would have entered into such an agreement with EPA Region I at an earlier date if full delegation could have been made. In 1977 this agreement was signed knowing that Section 205g with full delegation authorization was forthcoming.

It is imperative that the Federal funding commitment be expanded, particularly for states that can quickly obligate it. It should be noted that Thomas Jorling on pages 10, 11, and 12 in "Strategies

for Funding of Multi-Purpose Projects" dated June 1979 (Appendix 7) stressed that the need to comply with the Federal statute will never be satisfied at an annual appropriations of $4.2 billion if inflation continues at a minimum of 7% and even with zero inflation, it will take approximately 19 years to construct the needs to satisfy the requirements of PL 92-500.

It is wishful thinking to believe that the requirements of the law will ever be met unless adequate and prompt funding is provided. In New Hampshire during a hearing on our FY 80 Construction Grants Project List, over 100 people were in attendance representing 59 communities, all, without an exception, requesting that their projects, for which the plans have been completed, be promptly funded for construction. Regretfully, the wishes of only 17 communities could be complied with. Projects for which construction drawings are all prepared are not even on a list covering the next four years, FY 81-84, due to the rate of present funding. New Hampshire has a Construction Grants Project List 51 pages long with projects necessary for compliance with the requirements of PL 92-500, none of which will be funded until after FY 84. Appendix 8 consists of our EPA-accepted FY 80, FY 81-84 and the 51 pages of after 1984 lists. In this regard, we should note that New Hampshire funding under PL 92-500, and prior laws, has never used EPA funds for new collector sewers. By passage of a two-tier funding program, as in HR 4113 and SB 1328, the states such as New Hampshire which are ready to proceed and can use the funds immediately would be able to obtain up to the authorization. Such a program would enable the states which are conscientiously following the lead set forth by the Federal Government when they passed

PL 92-500 at least the opportunity of moving ahead instead of hearing the old saying "hurry up and wait." It is suggested that the obligation of the innovative/alternative set-asides not be a requirement to qualify in the two-tier funding or in redistribution of any unobligated funds. We believe that legislation should be amended so innovative/alternative funding be bonus based on demonstration projects and not as a set-aside.

Again, Mr. Chairman, I want to thank the Committee on behalf of the Water Supply and Pollution Control Commission of the State of New Hampshire for this opportunity to be with you and share some of our experiences and recommendations for this extremely important resource program. In closing, I would once more stress the necessity for adequate funding of the program. The erosion affects of less than authorization appropriations in the long range are going to delay the achievement goals which all of us wish to perform, namely, clean waters in our Nation.

NHWSPCC
7-5-72

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 1 | C | 4-70 | Peterborough | CDM | 46,000 | Engineer declined assignment | | | |
| 1A | C | 4-70 | Peterborough | WPBW | 25,000 | 23,000 | 23,000 | 50 | 23,000 |
| 2 | D | 4-70 | Bennington | A-N | 90,000 | 71,000 | 19,000 | 26 | 42,000 |
| 3 | C | 5-70 | Epping | A-N | 25,300 | 14,000 | 11,300 | 80 | 53,300 |
| 4 | C | 5-70 | Groveton | A-N | 10,900 | 9,000 | 1,900 | 20 | 55,200 |
| 5 | C | 5-70 | Nashua-Rt. 111 | CDM | 4,400 | 2,700 | 1,700 | 62 | 56,900 |
| 6 | C | 5-70 | Nashua-Library | CDM | 2,800 | 2,100 | 700 | 33 | 57,600 |
| 7 | D | 6-70 | Antrim | A-N | 38,200 | 35,000 | 3,200 | 9 | 60,800 |
| 8 | C | 7-70 | Newport | CDM | 29,000 | 29,000 | 0 | 0 | 60,800 |
| 9 | D | 7-70 | Pittsfield | HNTB | 50,000 | 46,500 | 3,500 | 7 | 64,300 |
| 10 | D | 8-70 | Henniker | FGK | 65,108 | 46,286 | 18,822 | 40 | 83,122 |
| 11 | D | 10-70 | New Hampton | A-N | 6,500 | 5,300 | 1,200 | 22 | 84,322 |
| 12 | D | 10-70 | Dover (Bellamy) | Green | 10,200 | 5,300 | 4,900 | 92 | 89,222 |
| 13 | C | 10-70 | Newbury | EEI | 3,000 | 2,100 | 900 | 42 | 90,122 |
| 14 | R | 10-70 | Berlin | A-N | 489,000 | 237,000 | 252,000 | 106 | 342,122 |
| 15 | R | 10-70 | Littleton | WPBW | 7,000 | 4,000 | 3,000 | 75 | 345,122 |
| 16 | C | 2-71 | Nashua-Aeration | CDM | 950 | 950 | 0 | 0 | 345,122 |
| 17 | R | 3-71 | Winn, River Basin | CEM | 59,700 | 55,100 | 4,600 | 8 | 349,722 |
| 18 | R | 3-71 | Laconia - Weirs | CEM | 5,975 | 5,975 | 0 | 0 | 349,722 |
| 19 | R | 3-71 | Hampton | WPBW | 25,000 | 25,000 | 0 | 0 | 349,722 |
| 20 | D | 3-71 | Concord | EEI | 5,400 | 5,400 | 0 | 0 | 349,722 |
| 21 | D | 3-71 | Conway | CDM | 62,000 | 57,000 | 5,000 | 8 | 354,722 |
| 22 | C | 3-71 | Merrimack #2 | A-N | 132,207 | 112,262 | 19,945 | 17 | 374,667 |
| 23 | D | 4-71 | Meredith | EEI | 9,500 | 9,100 | 400 | 4 | 375,067 |
| 24 | R | 5-71 | Portsmouth STP | WPBW | 42,000 | 34,000 | 8,000 | 23 | 383,067 |
| 25 | D | 5-71 | Derry-Aerate | EEI | 6,400 | 6,400 | 0 | 0 | 383,067 |
| 26 | D | 5-71 | Hampton-Landing Rd. | WPBW | 9,000 | 9,000 | 0 | 0 | 383,067 |
| 27 | R | 6-71 | Concord | CDM | 80,000 | 52,000 | 28,000 | 53 | 411,067 |
| 28 | D | 2-71 | Durham-Grease | CDM | 6,500 | Engineer declined assignment | | | |
| 28A | D | 6-71 | Durham-Grease | EEI | 4,500 | 4,500 | 2,000 | 30 | 413,067 |
| 29 | C | 6-71 | Derry-Aerate | EEI | 2,500 | 2,500 | 0 | 0 | 413,067 |
| 30 | R | 6-71 | Ashland | EEI | 2,000 | 2,000 | 0 | 0 | 413,067 |
| 31 | D | 7-71 | New London | A-N | 42,800 | 36,200 | 6,600 | 18 | 419,667 |
| 32 | R | 7-71 | New London | A-N | 35,400 | 30,300 | 5,100 | 16 | 424,767 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
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|---|---|---|---|---|---|---|---|---|---|
| 33 | D | 7-71 | Salem | M&E | 8,000 | 8,000 | 0 | 0 | 424,767 |
| 34 | D | 7-71 | Hampton-Surfside | WPB&W | 9,200 | 9,000 | 200 | 2 | 424,967 |
| 35 | D | 7-71 | Cheshire County Home | EEI | 6,000 | 6,000 | 0 | 0 | 424,967 |
| 36 | C | 7-71 | Hampton | Durgin | 1,890 | 1,890 | 0 | 0 | 424,967 |
| 37 | R | 7-71 | Bedford | A-N | 16,700 | 16,700 | 0 | 0 | 424,967 |
| 38 | D | 8-71 | Littleton | WPBW | 16,000 | 16,000 | 0 | 0 | 424,967 |
| 39 | R | 8-71 | Dover | ABR | 42,500 | 25,000 | 17,500 | 70 | 442,467 |
| 40 | D | 8-71 | Derry | CDM | 8,500 | 8,500 | 0 | 0 | 442,467 |
| 41 | C | 8-71 | Conway | CDM | 33,100 | 25,000 | 8,100 | 32 | 450,567 |
| 42 | C | 8-71 | Peterborough #5 | WPBW | 4,000 | 3,600 | 400 | 11 | 450,967 |
| 43 | C | 8-71 | Lancaster | A-N | 37,800 | 37,800 | 0 | 0 | 450,967 |
| 44 | C | 8-71 | Hooksett | EEI | 1,000 | 1,000 | 0 | 0 | 450,967 |
| 45 | D | 9-71 | Portsmouth | WPBW | 48,500 | 35,000 | 13,500 | 38 | 464,467 |
| 46 | R | 9-71 | Stewartstown | A-N | 12,600 | 11,800 | 800 | 6 | 465,267 |
| 47 | R | 10-71 | Bow | A-N | 4,100 | 4,100 | 0 | 0 | 465,267 |
| 48 | D | 10-71 | Exeter | McKenna | 2,000 | 2,000 | 0 | 0 | 465,267 |
| 49 | C | 10-71 | Merrimack #3 | A-N | 10,320 | 9,200 | 1,120 | 12 | 466,387 |
| 50 | D | 10-71 | Rockingham County Hm | EEI | 7,800 | 7,800 | 0 | 0 | 466,387 |
| 51 | D | 10-71 | Bristol | A-N | 6,540 | 6,300 | 240 | 3 | 466,627 |
| 52 | D | 10-71 | Waterville Valley | EEI | 29,000 | 29,000 | 0 | 0 | 466,627 |
| 53 | R | 12-71 | Newfields | SEA | 7,000 | 7,000 | 0 | 0 | 466,627 |
| 54 | C | 12-71 | Nashua | CDM | 164,000 | 116,000 | 48,000 | 41 | 514,627 |
| 55 | R | 1-72 | Derry | CDM | 18,000 | 18,000 | 0 | 0 | 514,627 |
| 56 | D | 1-72 | Hampton | WPBW | 6,400 | 6,400 | 0 | 0 | 514,627 |
| 57 | R | 2-72 | Meredith | EEI | 2,000 | 2,000 | 0 | 0 | 514,627 |
| 58 | D | 2-72 | Sunapee | A-N | 13,100 | 11,000 | 2,100 | 19 | 516,727 |
| 59 | C | 3-72 | Concord | CDM | 61,500 | 59,000 | 2,500 | 4 | 519,227 |
| 60 | C | 3-72 | Laconia-Shore Drive | ABR | 11,200 | 8,700 | 2,500 | 28 | 521,727 |
| 61 | D• | 3-72 | Strafford Cty Home | Green | 6,500 | 6,500 | 0 | 0 | 521,727 |
| 62 | R | 3-72 | Hooksett | EEI | 7,000 | 7,000 | 0 | 0 | 521,727 |
| 63 | D | 5-71 | Hudson | FGK | 162,225 | Engineer Released by Town | | | |
| 63A | D | 3-72 | Hudson | Morgenroth | 107,000 | 93,000 | 69,225 | 42 | 590,952 |
| 64 | C | 4-72 | Bristol | A-N | 3,000 | 3,000 | 0 | 0 | 590,952 |
| 65 | D | 5-72 | Ashland | EEI | 13,000 | 12,000 | 1,000 | 8 | 591,952 |
| 66 | D | 5-72 | Salem | EEI | 16,000 | 16,000 | 0 | 0 | 591,952 |
| 67 | C | 5-72 | Hampton | WPBW | 3,000 | 3,000 | 0 | 0 | 591,952 |
| 68 | D | 6-72 | Laconia | CEM | 114,000 | 82,000 | 32,000 | 39 | 623,952 |
| 69 | R | 6-72 | Charlestown | WPBW | 14,000 | 11,400 | 2,600 | 22 | 626,552 |
| 70 | D | 6-72 | Gunstock! | ABR | 4,300 | 4,300 | 0 | 0 | 626,552 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 71 | D | 7-72 | Merrimack #8 | A-N | 20,904 | 8,500 | 12,404 | 145 | 638,956 |
| 72 | R | 7-72 | Merrimack #9 | A-N | 11,500 | 11,500 | 0 | 0 | 638,956 |
| 73 | C | 7-72 | Merrimack #4,6,7 | A-N | 19,254 | 14,000 | 5,254 | 37 | 644,210 |
| 74 | C | 8-72 | Rockingham Cty | EEI | 3,000 | 3,000 | 0 | 0 | 644,210 |
| 75 | C | 9-72 | Lebanon | M&E | 80,000 | 60,200 | 19,800 | 33 | 664,010 |
| 76 | R | 9-72 | Weare | A-N | 3,700 | 3,700 | 0 | 0 | 664,010 |
| 77 | D | 9-72 | Hampton | WPBW | 145,000 | 95,000 | 50,000 | 52 | 714,010 |
| 78 | C | 10-72 | New London | A-N | 11,500 | 11,500 | 0 | 0 | 714,010 |
| 79 | D | 10-72 | Hampton | WPBW | 520 | 520 | 0 | 0 | 714,010 |
| 80 | D | 10-72 | Littleton | EEI | 3,000 | 3,000 | 0 | 0 | 714,010 |
| 81 | D | 10-72 | Manchester | HHB | 161,000 | 122,000 | 39,000 | 32 | 753,010 |
| 82 | C | 11-72 | Ashland | EEI | 5,000 | 5,000 | 0 | 0 | 753,010 |
| 83 | C | 11-72 | Cheshire County | EEI | 3,000 | 3,000 | 0 | 0 | 753,010 |
| 84 | D | 12-72 | Portsmouth | WPBW | 9,200 | 9,200 | 0 | 0 | 753,010 |
| 85 | R | 12-72 | Rochester | Collins | 26,800 | 26,800 | 0 | 0 | 753,010 |
| 86 | D | 12-72 | Waterville Valley | EEI | 50,000 | 50,000 | 0 | 0 | 753,010 |
| 87 | C | 12-72 | Sunapee | A-N | 39,000 | 34,000 | 5,000 | 15 | 758,010 |
| 88 | C | 12-72 | Dover-Bellamy | Green | 13,775 | 5,000 | 8,775 | 178 | 766,785 |
| 89 | R | 2-73 | Grafton County | EEI | 4,000 | 4,000 | 0 | 0 | 766,785 |
| 90 | R | 2-73 | Meredith | EEI | 2,100 | 2,100 | 0 | 0 | 766,785 |
| 91 | D | 2-73 | Sullivan County | EEI | 6,500 | 6,500 | 0 | 0 | 766,785 |
| 92 | C | 2-73 | Boscawen | CDM | 10,000 | 5,000 | 5,000 | 100 | 771,785 |
| 93 | R | 3-73 | Hinsdale | A-N | 7,500 | 7,500 | 0 | 0 | 771,785 |
| 94 | D | 3-73 | Merrimack #9 | A-N | 137,000 | 87,000 | 50,000 | 57 | 821,785 |
| 95 | D | 3-73 | Hooksett-Int. | EEI | 10,000 | 10,000 | 0 | 0 | 821,785 |
| 96 A | R | 7-72 | Alton | HNTB | 18,300 | Engineer declined the assignment | | | |
| 96 B | R | 3-73 | Alton | A-N | 13,300 | 13,300 | 5,000 | 38 | 826,785 |
| 97 | D | 3-73 | Derry | CDM | 17,000 | 17,000 | 0 | 0 | 826,785 |
| 98 | R | 3-73 | Woodsville | W&H | 7,500 | 7,500 | 0 | 0 | 826,785 |
| 99 | D | 3-73 | Hooksett-Int | EEI | 23,900 | 23,900 | 0 | 0 | 826,785 |
| 100 | C | 4-73 | Salem | EEI | 5,700 | 5,700 | 0 | 0 | 826,785 |
| 101 | C | 4-73 | Woodstock #1 | CDM | 10,100 | 10,100 | 0 | 0 | 826,785 |
| 102 | C | 4-73 | Merrimack #1 Amend | A-N | 22,056 | 15,000 | 7,056 | 47 | 833,841 |
| 103 | D | 5-73 | Londonderry | ABR | 42,500 | 42,500 | 0 | 0 | 833,841 |
| 104 | R | 5-73 | Winchester | A-N | 7,500 | 7,500 | 0 | 0 | 833,841 |
| 105 | D | 5-73 | Hampton | WPBW | 12,000 | 10,000 | 2,000 | 20 | 835,841 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 106 | C | 5-73 | New Hampton | A-N | 5,100 | 5,100 | 0 | 0 | 835,841 |
| 107 | D | 5-73 | Concord | EEI | 5,000 | 5,000 | 0 | 0 | 835,841 |
| 108 | R | 6-73 | Bristol | A-N | 23,000 | 20,000 | 3,000 | 15 | 838,841 |
| 109 | D | 6-73 | Salem | EEI | 40,000 | 40,000 | 0 | 0 | 838,841 |
| 110 | D | 6-73 | Winnipesaukee #2 | SEA | 217,000 | 115,000 | 102,000 | 89 | 940,841 |
| 111 | C | 6-73 | Winnipesaukee #1 | CEM | 27,500 | 25,800 | 1,700 | 7 | 942,541 |
| 112 | D | 6-73 | Lebanon Storm | M&E | 44,200 | 27,400 | 16,800 | 61 | 959,341 |
| 113 | D | 6-73 | Lebanon STP | M&E | 170,000 | 152,000 | 18,000 | 12 | 977,341 |
| 114 | C | 6-73 | Lebanon Center Int. | M&E | 80,300 | 64,000 | 16,300 | 25 | 993,641 |
| 115 | C | 7-73 | Hampton | WPBW | 1,000 | 1,000 | 0 | 0 | 993,641 |
| 116 | C | 7-73 | Nashua #2 | CDM | 18,000 | 18,000 | 0 | 0 | 993,641 |
| 117 | R | 7-73 | Salem-Sludge | EEI | 2,000 | 2,000 | 0 | 0 | 993,641 |
| 118 | R | 8-73 | Gilford | A-N | 21,500 | 21,500 | 0 | 0 | 993,641 |
| 119 | D | 8-73 | Northumberland | A-N | 3,500 | 3,500 | 0 | 0 | 993,641 |
| 120 | C | 8-73 | Waterville Valley | EEI | 35,000 | 28,000 | 7,000 | 25 | 1,000,641 |
| 121 | R | 9-73 | Walpole | SEA | 9,000 | 9,000 | 0 | 0 | 1,000,641 |
| 122 | C | 9-73 | Manchester | HHB | 216,000 | 132,000 | 84,000 | 64 | 1,084,641 |
| 123 | D | 9-73 | Littleton | EEI | 2,000 | 2,000 | 0 | 0 | 1,084,641 |
| 124 | C | 6-73 | Wolfeboro | CDM | 40,000 | Unable to conclude negotiations | | | |
| 124A | C | 10-73 | Wolfeboro | HTA | 26,600 | 24,000 | 16,000 | 67 | 1,100,641 |
| 125 | D | 10-73 | Pittsfield Amend. | HNTB | 128,000 | 60,000 | 68,000 | 113 | 1,168,641 |
| 126 | D | 10-73 | Greenville | HTA | 22,800 | 22,800 | 0 | 0 | 1,168,641 |
| 127A | D | 8-73 | Salem | M&E | 65,100 | Unable to negotiate, released by Town | | | |
| 127B | D | 12-73 | Salem | EEI | 41,500 | 40,000 | 25,100 | 63 | 1,193,741 |
| 128 | I/I | 12-73 | Hampton Amend. | WPBW | 4,500 | 4,500 | 0 | 0 | 1,193,741 |
| 129 | C | 1-74 | Hooksett | EEI | 3,800 | 3,000 | 800 | 27 | 1,194,541 |
| 130 | D | 1-74 | NewCastle | CDM | 44,000 | 44,000 | 0 | 0 | 1,194,541 |
| 131 | C | 1-74 | Northumberland | A-N | 1,400 | 1,400 | 0 | 0 | 1,194,541 |
| 132 | R | 2-74 | Newington | W&H | 17,800 | 17,800 | 0 | 0 | 1,194,541 |
| 133 | D | 2-74 | Derry | EEI | 19,000 | 14,000 | 5,000 | 36 | 1,199,541 |
| 134 | D | 2-74 | Meredith | EEI | 11,800 | 9,600 | 2,200 | 33 | 1,201,741 |
| 135 | R | 3-74 | Manchester | A-N | 42,600 | 42,600 | 0 | 0 | 1,201,741 |
| 136 | D | 3-74 | Laconia | HTA | 5,300 | 5,300 | 0 | 0 | 1,201,741 |
| 137 | D | 3-74 | Dover | Green | 57,520 | 57,520 | 0 | 0 | 1,201,741 |
| 138 | D | 3-74 | Manchester Amend. | HHB | 48,000 | 48,000 | 0 | 0 | 1,201,741 |
| 139 | C | 3-74 | Hampton | WPBW | 2,000 | 2,000 | 0 | 0 | 1,201,741 |
| 140 | D | 4-74 | Hooksett | EEI | 6,000 | 6,000 | 0 | 0 | 1,201,741 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 141 | R | 4-74 | Exeter | WPBW | 29,000 | 29,000 | 0 | 0 | 1,201,741 |
| 142 | R | 4-74 | Nashua | CDM | 75,000 | 75,000 | 0 | 0 | 1,201,741 |
| 143 | R | 4-74 | Charlestown | WPBW | 3,500 | 3,500 | 0 | 0 | 1,201,741 |
| 144 | C | 4-74 | Greenville | HTA | 35,500 | 35,500 | 0 | 0 | 1,201,741 |
| 145 | I/I | 4-74 | Hudson | Morgenroth | 5,200 | 5,200 | 0 | 0 | 1,201,741 |
| 146 | R | 5-74 | Durham | CDM | 48,500 | 48,500 | 0 | 0 | 1,201,741 |
| 147 | R | 5-74 | Rollinsford | LEA | 15,575 | 15,575 | 0 | 0 | 1,201,741 |
| 148 | D | 5-74 | Lincoln | EEI | 2,200 | 2,200 | 0 | 0 | 1,201,741 |
| 149 | D | 5-74 | Wolfeboro-Tertiary | HTA | 44,700 | 44,700 | 0 | 0 | 1,201,741 |
| 150 | C | 5-74 | Salem | EEI | 3,550 | 3,550 | 0 | 0 | 1,201,741 |
| 151A | C | 4-74 | Derry | CDM | 7,000 | Unable to negotiate. Town released Engineer | | | |
| 151B | C | 5-74 | Derry | EEI | 6,500 | 5,500 | 1,000 | 27 | 1,203,241 |
| 152 | C | 5-74 | Laconia | HTA | 14,700 | 14,000 | 700 | 5 | 1,203,941 |
| 153 | R | 5-74 | Laconia | HTA | 28,000 | 28,000 | 0 | 0 | 1,203,941 |
| 154A | C | 4-74 | Salem | MAE | 9,800 | Unable to negotiate, Town released Engineer | | | |
| 154B | C | 6-74 | Salem | WPBW | 2,750 | 2,750 | 7,050 | 256 | 1,210,991 |
| 155 | C | 6-74 | Farmington | A-N | 95,200 | 79,900 | 15,300 | 19 | 1,226,291 |
| 156 | D | 6-74 | Bay District | A-N | 1,400 | 1,400 | 0 | 0 | 1,226,291 |
| 157 | C | 6-74 | Hampton | WPBW | 5,000 | 5,000 | 0 | 0 | 1,226,291 |
| 158 | C | 6-74 | Manchester | HAB | 80,000 | 80,000 | 0 | 0 | 1,226,291 |
| 159 | C | 6-74 | Hooksett | EEI | 7,400 | 7,400 | 0 | 0 | 1,226,291 |
| 160 | R | 7-74 | New London | A-N | 24,000 | 24,000 | 0 | 0 | 1,226,291 |
| 161 | R | 7-74 | Concord | CDM | 60,000 | 60,000 | 0 | 0 | 1,226,291 |
| 162 | C | 7-74 | Portsmouth | WPBW | 15,000 | 15,000 | 0 | 0 | 1,226,291 |
| 163 | C | 7-74 | Dover | Green | 91,400 | 58,300 | 33,100 | 36 | 1,259,391 |
| 164 | C | 7-74 | Meredith | EEI | 5,000 | 4,500 | 500 | 11 | 1,259,891 |
| 165 | C | 8-74 | Salem | EEI | 6,450 | 6,450 | 0 | 0 | 1,259,891 |
| 166 | D | 8-74 | Hudson | Morgenroth | 114,000 | 91,000 | 23,000 | 25 | 1,282,891 |
| 167 | C | 8-74 | Merrimack-Amend. | A-N | 56,340 | 31,308 | 25,032 | 44 | 1,307,923 |
| 168A | R | 6-74 | Dover | Green | 96,600 | Engineer released by City | | | |
| 168B | R | 8-74 | Dover | WPBW | 45,000 | 45,000 | 51,600 | 115 | 1,359,523 |
| 169 | C | 8-74 | Pembroke | Morgenroth | 54,000 | 51,500 | 2,500 | 5 | 1,362,023 |
| 170 | C | 8-74 | Allenstown | Morgenroth | 30,000 | 30,000 | 0 | 0 | 1,362,023 |
| 171 | D | 8-74 | Berlin | A-N | 486,000 | 390,000 | 96,000 | 25 | 1,458,023 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 172 | C | 8-74 | New London | A-N | 9,000 | 7,000 | 2,000 | 22 | 1,460,023 |
| 173 | C | 8-74 | Warner | A-N | 84,000 | 51,000 | 33,000 | 65 | 1,493,023 |
| 174 | C | 8-74 | WRB-State School | HTA | 24,400 | 24,400 | 0 | 0 | 1,493,023 |
| 175 | R | 8-74 | Gorham | W&S | 43,200 | 43,200 | 0 | 0 | 1,493,023 |
| 176 | D | 9-74 | WRB-Tilton Int. | WPBW | 90,500 | 90,500 | 0 | 0 | 1,493,023 |
| 177 | R | 9-74 | WRB-Fac. Plan | A-N | 73,100 | 33,000 | 40,100 | 122 | 1,533,123 |
| 178 | R | 9-74 | Portsmouth | C&R | 27,500 | 16,500 | 11,000 | 67 | 1,544,123 |
| 179 | D | 9-74 | WRB-Gilford Int. | HTA | 152,308 | 150,000 | 2,308 | 2 | 1,546,431 |
| 180 | D | 9-74 | Merrimack | HEA | 15,000 | 15,000 | 0 | 0 | 1,546,431 |
| 181 | C | 10-74 | Hampton STP | WPBW | 43,000 | 43,000 | 0 | 0 | 1,546,431 |
| 182 | D | 10-74 | WRB-Franklin Int. | CEM | 153,000 | 81,000 | 72,000 | 89 | 1,618,431 |
| 183 | C | 10-74 | Henniker | FGK | 40,217 | 37,000 | 3,217 | 9 | 1,621,648 |
| 184 | D | 10-74 | WRB-Franklin STP | SEA | 318,060 | 250,000 | 68,060 | 27 | 1,689,708 |
| 185 | D | 10-74 | WRB-W.Paugus Int. | M&H | 464,000 | 200,000 | 264,000 | 130 | 1,953,708 |
| 186 | D | 10-74 | Dover | HTA | 271,500 | 224,000 | 47,500 | 21 | 2,001,208 |
| 187 | C | 10-74 | Laconia-Amend. | HTA | 4,100 | 4,100 | 0 | 0 | 2,001,208 |
| 188 | D | 10-74 | Laconia | HTA | 18,900 | 16,500 | 2,400 | 15 | 2,003,608 |
| 189 | R | 10-74 | Derry | EEI | 51,000 | 51,000 | 0 | 0 | 2,003,608 |
| 190 | D | 10-74 | Weare | A-N | 13,100 | 13,100 | 0 | 0 | 2,003,608 |
| 191 | D | 10-74 | Hanover #1 | W&S | 53,750 | 43,890 | 9,860 | 22 | 2,013,468 |
| 192 | D | 10-74 | Hanover #2 | W&S | 32,150 | 32,150 | 0 | 0 | 2,013,468 |
| 193 | R | 10-74 | Keene Region | CEM | 127,000 | 127,000 | 0 | 0 | 2,013,468 |
| 194 | C | 11-74 | Merrimack Cty. Home | A-N | 52,000 | 42,000 | 10,000 | 24 | 2,023,468 |
| 195 | C | 11-74 | Sullivan Cty. Home | EEI | 4,500 | 4,500 | 0 | 0 | 2,023,468 |
| 196 | C | 11-74 | Merrimack | HEA | 5,600 | 4,500 | 1,100 | 25 | 2,024,568 |
| 197 | D | 11-74 | Charlestown | WPBW | 60,000 | 60,000 | 0 | 0 | 2,024,568 |
| 198 | C | 11-74 | Sunapee-Amend. | A-N | 21,800 | 21,800 | 0 | 0 | 2,024,568 |
| 199 | C | 12-74 | Salem | EEI | 16,500 | 14,000 | 2,500 | 18 | 2,027,068 |
| 200 | D | 12-74 | Lebanon | M&E | 37,000 | 28,000 | 9,000 | 32 | 2,036,068 |
| 201 | C | 12-74 | Lebanon | M&E | 55,000 | 55,000 | 0 | 0 | 2,036,068 |
| 202 | C | 12-74 | Lebanon-Amend. | M&E | 22,500 | 22,500 | 0 | 0 | 2,036,068 |
| 203 | C | 1-75 | Manchester-Amend. | HHB | 175,000 | 70,000 | 105,000 | 150 | 2,141,068 |
| 204 | C | 2-75 | Merrimack | A-N | 42,560 | 42,560 | 0 | 0 | 2,141,068 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 205 | R | 3-75 | Laconia | HTA | 227,050 | 128,900 | 98,150 | 76 | 2,239,218 |
| 206 | R | 3-75 | Milford | A-N | 53,490 | 53,490 | 0 | 0 | 2,239,218 |
| 207 | R | 3-75 | Hooksett | EEI | 41,000 | 41,000 | 0 | 0 | 2,239,218 |
| 208 | R | 3-75 | Hillsboro | A-N | 57,000 | 43,700 | 13,300 | 30 | 2,252,518 |
| 209 | R | 3-75 | Goffstown | HTA | 91,750 | 70,450 | 21,300 | 30 | 2,273,818 |
| 210 | D | 3-75 | Hampton | WPBW | 14,000 | 10,200 | 3,800 | 37 | 2,277,618 |
| 211 | R | 4-75 | Portsmouth | WPBW | 41,000 | 41,000 | 0 | 0 | 2,277,618 |
| 212 | R | 4-75 | Claremont | W&H | 56,000 | 56,000 | 0 | 0 | 2,277,618 |
| 213 | C | 4-75 | New Castle | CDM | 50,540 | 50,540 | 0 | 0 | 2,277,618 |
| 214 | C | 4-75 | Merrimack | A-N | 3,500 | 3,500 | 0 | 0 | 2,277,618 |
| 215 | C | 4-75 | Lisbon | Green | 430,900 | 233,600 | 197,300 | 84 | 2,474,918 |
| 216 | C | 4-75 | Landaff | Green | 24,700 | 24,700 | 0 | 0 | 2,474,918 |
| 217 | R | 4-75 | Antrim | A-N | 20,000 | 20,000 | 0 | 0 | 2,474,918 |
| 218 | R | 4-75 | Hanover | H&S | 67,000 | 67,000 | 0 | 0 | 2,474,918 |
| 219 | D | 4-75 | Bedford | A-N | 161,350 | 120,000 | 41,350 | 34 | 2,516,268 |
| 220 | C | 4-75 | Merrimack | A-N | 3,500 | 3,500 | 0 | 0 | 2,516,268 |
| 221 | C | 5-75 | Cheshire Co.(Amend.) | EEI | 5,400 | 5,400 | 0 | 0 | 2,516,268 |
| 222 | R | 5-75 | Plymouth | W&H | 60,000 | 48,000 | 12,000 | 25 | 2,528,268 |
| 223 | R | 5-75 | Wilton | Keyes | 39,870 | 33,520 | 6,350 | 19 | 2,534,618 |
| 224 | R | 6-74 | Rochester | M&E | 91,320 | City changed engineer - no negotiations | | | |
| 224A | R | 5-75 | Rochester | Green | 80,000 | 80,000 | 11,320 | 14 | 2,545,938 |
| 225 | C | 6-75 | Pittsfield | NNTB | 274,350 | 246,000 | 28,350 | 12 | 2,574,288 |
| 226 | R | 6-75 | Northumberland | A-N | 26,000 | 26,000 | 0 | 0 | 2,574,288 |
| 227 | D | 6-75 | Winchester | A-N | 128,400 | 118,500 | 9,900 | 8 | 2,584,188 |
| 228 | D | 6-75 | Laconia | HTA | 82,000 | 82,000 | 0 | 0 | 2,584,188 |
| 229 | D | 6-75 | Newfields | SEA | 52,075 | 52,075 | 0 | 0 | 2,584,188 |
| 230 | D | 6-75 | Hinsdale | A-N | 85,100 | 81,100 | 4,000 | 5 | 2,588,188 |
| 231 | R | 6-75 | Portsmouth Region | EEI | 27,000 | 27,000 | 0 | 0 | 2,588,188 |
| 232 | R | 8-74 | Newmarket | Green | 107,650 | Town released engineer - no negotiations | | | |
| 232A | R | 7-75 | Newmarket | WPBW | 57,000 | 57,000 | 50,650 | 89 | 2,638,838 |
| 233 | R | 7-75 | Raymond | WPBW | 38,000 | 38,000 | 0 | 0 | 2,638,838 |
| 234 | D | 7-75 | Hampton-Amend. | WPBW | 61,500 | 61,500 | 0 | 0 | 2,638,838 |
| 235 | C | 7-75 | Nashua #5 | CDM | 30,500 | 30,500 | 0 | 0 | 2,638,838 |
| 236 | R | 8-75 | Dover-Amend. | WPBW | 5,500 | 5,500 | 0 | 0 | 2,638,838 |
| 237 | R | 8-75 | Stratford | HTA | 18,300 | 18,300 | 0 | 0 | 2,638,838 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 238 | D | 8-75 | Hooksett | EEI | 2,600 | 2,600 | 0 | 0 | 2,638,838 |
| 239 | R | 9-75 | Hopkinton | A-N | 22,500 | 22,500 | 0 | 0 | 2,638,838 |
| 240 | R | 9-75 | Bethlehem | A-N | 16,000 | 16,000 | 0 | 0 | 2,638,838 |
| 241 | R | 9-75 | Whitefield | A-N | 40,800 | 40,800 | 0 | 0 | 2,638,838 |
| 242 | D | 9-75 | Gilford-WRB-Amend. | HTA | 62,300 | 62,300 | 0 | 0 | 2,638,838 |
| 243 | C | 10-75 | Hampton | WPBW | 2,000 | 2,000 | 0 | 0 | 2,638,838 |
| 244 | R | 10-75 | Milton | Morgenroth | 22,200 | 22,200 | 0 | 0 | 2,638,838 |
| 245 | C | 11-75 | Wolfeboro | HTA | 28,000 | 28,000 | 0 | 0 | 2,638,838 |
| 246 | D | 11-75 | Winchester-Amend. | A-N | 7,500 | 2,500 | 5,000 | 200 | 2,643,838 |
| 247 | D | 5-75 | Durham | CDM | 232,000 | Town released engineer - no negotiations | | | |
| 247A | D | 11-75 | Durham | HTA | 163,000 | 157,600 | 74,400 | 47 | 2,718,238 |
| 248 | D | 11-75 | Merrimack | HEA | 130,800 | 110,000 | 20,800 | 19 | 2,739,038 |
| 249 | D | 12-75 | WRB-Sanbornton Int. | R-F | 49,000 | 49,000 | 0 | 0 | 2,739,038 |
| 250 | D | 12-75 | WRB-Meredith Int. | W&H | 146,000 | 83,000 | 63,000 | 76 | 2,802,038 |
| 251 | R | 6-75 | Newport | CDM | 82,600 | Unable to negotiate, town released engineer | | | |
| 251A | R | 12-75 | Newport | HTA | 50,000 | 50,000 | 32,600 | 65 | 2,834,638 |
| 252 | R | 12-75 | Seabrook | W&H | 42,900 | 27,900 | 15,000 | 54 | 2,849,638 |
| 253 | R | 1-76 | Littleton | EEI | 101,050 | 64,600 | 36,450 | 56 | 2,886,088 |
| 254 | D | 2-76 | WRB-Belmont Int. | EEI | 85,000 | 85,000 | 0 | 0 | 2,886,088 |
| 255 | C | 2-76 | New Hampton | A-N | 15,500 | 11,000 | 4,500 | 41 | 2,890,588 |
| 256 | C | 3-76 | Manchester-Amend. | HHB | 35,000 | 33,000 | 2,000 | 6 | 2,892,588 |
| 257 | R | 3-76 | Merrimack | HEA | 108,930 | 27,900 | 81,030 | 290 | 2,973,618 |
| 258 | R | 4-76 | Londonderry | HTA | 56,000 | 56,000 | 0 | 0 | 2,973,618 |
| 259 | R | 4-76 | Colebrook | WPBW | 27,300 | 27,300 | 0 | 0 | 2,973,618 |
| 260 | R | 4-76 | Ossipee | HTA | 58,000 | 40,000 | 18,000 | 45 | 2,991,618 |
| 261 | D | 5-76 | Grafton County Home | EEI | 29,500 | 29,500 | 0 | 0 | 2,991,618 |
| 262 | C | 5-76 | Lebanon | M&E | 7,000 | 7,000 | 0 | 0 | 2,991,618 |
| 263 | D | 5-76 | Durham-Amend. | HTA | 38,000 | 37,000 | 1,000 | 3 | 2,992,618 |
| 264 | R | 6-75 | Manchester | FS&T | 680,000 | Unable to negotiate, City released engineer | | | |
| 264A | R | 5-76 | Manchester | RK&M | 170,600 | 170,600 | 509,400 | 299 | 3,502,018 |
| 265 | R | 5-76 | Enfield | M&E | 130,200 | 46,000 | 84,200 | 183 | 3,586,218 |
| 266 | C | 6-76 | Concord-Amend. | CDM | 30,514 | 9,000 | 21,514 | 239 | 3,607,732 |
| 267 | D | 4-76 | Gorham | W&S | 359,000 | Unable to negotiate, town released engineer | | | |
| 267A | D | 6-76 | Gorham | M&E | 219,500 | 219,500 | 139,500 | 64 | 3,747,232 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 268 | C | 6-76 | Hampton-Amend. | WPBW | 6,000 | 6,000 | 0 | 0 | 3,747,232 |
| 269 | R | 6-76 | Keene-Amend. | CEM | 47,000 | 47,000 | 0 | 0 | 3,747,232 |
| 270 | C | 6-76 | Merrimack-Amend. | A-N | 4,000 | 4,000 | 0 | 0 | 3,747,232 |
| 271 | R | 7-76 | Bath | D-H | 26,500 | 26,500 | 0 | 0 | 3,747,232 |
| 272 | R | 7-76 | Meriden Village | D-H | 27,200 | 27,200 | 0 | 0 | 3,747,232 |
| 273 | D | 7-76 | Berlin-Amend. | A-N | 10,500 | 10,500 | 0 | 0 | 3,747,232 |
| 274 | R | 7-76 | Bennington | D-H | 26,500 | 26,500 | 0 | 0 | 3,747,232 |
| 275 | R | 7-76 | Strafford C.H. | Green | 15,078 | 15,078 | 0 | 0 | 3,747,232 |
| 276 | D | 7-76 | WRB-Pemi. Int. | ECJ | 113,000 | 76,000 | 37,000 | 49 | 3,784,232 |
| 277 | D | 7-76 | Gilford | HTA | 115,670 | 115,670 | 0 | 0 | 3,784,232 |
| 278 | R | 7-76 | Merrimack | BOO | 45,000 | 43,000 | 2,000 | 5 | 3,786,232 |
| 279 | C | 7-76 | Sunapee-Amend. | A-N | 14,941 | 9,000 | 5,941 | 66 | 3,792,173 |
| 280 | R | 8-76 | Monroe | ECJ | 15,800 | 15,800 | 0 | 0 | 3,792,173 |
| 281 | R | 8-76 | New London-Amend. | A-N | 31,214 | 31,214 | 0 | 0 | 3,792,173 |
| 282 | R | 8-76 | Somersworth | HTA | 60,740 | 60,740 | 0 | 0 | 3,792,173 |
| 283 | C | 8-76 | Merrimack | HEA | 25,500 | 16,000 | 9,500 | 59 | 3,801,673 |
| 284 | R | 8-76 | Carroll C.H. | A-N | 19,000 | 19,000 | 0 | 0 | 3,801,673 |
| 285 | D | 8-76 | Claremont | D-H | 24,000 | 21,000 | 3,000 | 14 | 3,804,673 |
| 286 | D | 9-76 | Tilton (WRB) | W&H | 47,000 | 47,000 | 0 | 0 | 3,804,673 |
| 287 | D | 9-76 | Winchester-Amend. | A-N | 2,800 | 2,800 | 0 | 0 | 3,804,673 |
| 288 | D | 9-76 | Laconia (WRB) | HTA | 27,500 | 25,000 | 2,500 | 10 | 3,807,173 |
| 289 | D | 9-76 | Belmont | EEI | 98,000 | 98,000 | 0 | 0 | 3,807,173 |
| 290 | D | 9-76 | Haverhill | W&H | 109,300 | 100,000 | 9,300 | 9 | 3,816,473 |
| 291 | C | 9-76 | Hudson | Morgenroth | 85,000 | 85,000 | 0 | 0 | 3,816,473 |
| 292 | C | 9-76 | Charlestown | WPBW | 40,840 | 40,840 | 0 | 0 | 3,816,473 |
| 293 | D | 9-76 | Northfield (WRB) | EEI | 55,000 | 30,000 | 25,000 | 83 | 3,841,473 |
| 294 | C | 9-76 | Merrimack Co.-Amend. | A-N | 114,900 | 99,600 | 15,300 | 15 | 3,856,773 |
| 295 | C | 9-76 | Manchester-Amend. | HHB | 162,000 | 139,000 | 23,000 | 17 | 3,879,773 |
| 296 | C | 9-76 | Laconia | HTA | 13,865 | 13,865 | 0 | 0 | 3,879,773 |
| 297 | D | 9-76 | Hinsdale-Amend. | A-N | 6,640 | 6,640 | 0 | 0 | 3,879,773 |
| 298 | D | 9-76 | Dover | WPBW | 225,030 | 225,030 | 0 | 0 | 3,879,773 |
| 299 | D | 10-76 | Franklin (WRB) | A-N | 21,000 | 21,000 | 0 | 0 | 3,879,773 |
| 300 | D | 11-76 | Littleton (EDA) | EEI | 11,000 | 11,000 | 0 | 0 | 3,879,773 |
| 301 | C | 11-76 | Littleton (EDA) | EEI | 4,625 | 4,625 | 0 | 0 | 3,879,773 |
| 302 | C | 11-76 | New London-Amend. | A-N | 4,000 | 850 | 3,150 | 371 | 3,882,923 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 303 | D | 11-76 | Weare-Amend. | A-N | 8,500 | 8,500 | 0 | 0 | 3,882,923 |
| 304 | R | 11-76 | Peterborough | D-H | 4,200 | 4,200 | 0 | 0 | 3,882,923 |
| 305 | D | 6-76 | Concord | CDM | 2,082,700 | Unable to negotiate STP - City selected new engineer | | | |
| 305A | D | 11-76 | Concord-Sewers | CDM | 833,390 | 833,390 | 0 | 0 | 3,882,923 |
| 305B | D | 11-76 | Concord-STP | EEI | 606,000 | 366,600 | 882,710 | 74 | 4,765,633 |
| 306 | D | 11-76 | Manchester (EDA) | HNTB | 5,440 | 5,440 | 0 | 0 | 4,765,633 |
| 307 | C | 11-76 | Hanover | H&S | 53,800 | 30,000 | 23,800 | 79 | 4,789,433 |
| 308 | R | 11-76 | Milford-Amend. | A-N | 5,690 | 5,690 | 0 | 0 | 4,789,433 |
| 309 | D | 11-76 | Berlin-Amend. | A-N | 84,600 | 84,600 | 0 | 0 | 4,789,433 |
| 310 | R | 11-76 | Canaan | HTA | 48,000 | 48,000 | 0 | 0 | 4,789,433 |
| 311 | C | 11-76 | Derry | EEI | 6,000 | 6,000 | 0 | 0 | 4,789,433 |
| 312 | C | 11-76 | Gunstock (EDA) | HTA | 4,200 | 4,200 | 0 | 0 | 4,789,433 |
| 313 | C | 11-76 | Dover (EDA) | HTA | 78,000 | 78,000 | 0 | 0 | 4,789,433 |
| 314 | C | 12-76 | Berlin | A-N | 259,800 | 221,800 | 38,000 | 15 | 4,827,433 |
| 315 | D | 12-76 | Laconia | HTA | 48,500 | 48,500 | 0 | 0 | 4,827,433 |
| 316 | C | 12-76 | Antrim | A-N | 21,114 | 21,114 | 0 | 0 | 4,827,433 |
| 317 | C | 12-76 | Bedford | A-N | 20,840 | 20,840 | 0 | 0 | 4,827,433 |
| 318 | D | 12-76 | Milford | A-N | 6,700 | 6,700 | 0 | 0 | 4,827,433 |
| 319 | C | 12-76 | Derry (EDA) | CDM | 9,000 | 9,000 | 0 | 0 | 4,827,433 |
| 320 | C | 12-76 | Wolfeboro-Amend. | HTA | 7,000 | 7,000 | 0 | 0 | 4,827,433 |
| 321 | D | 12-76 | Winchester-Amend. | A-N | 5,800 | 0 | 5,800 | - | 4,833,233 |
| 322 | D | 12-76 | Keene | ECJ | 691,897 | 610,000 | 81,897 | 13 | 4,915,130 |
| 323 | D | 12-76 | Marlborough | ECJ | 110,646 | 104,596 | 6,050 | 6 | 4,921,180 |
| 324 | D | 12-76 | Troy | ECJ | 357,037 | 310,000 | 47,037 | 15 | 4,968,217 |
| 325 | C | 12-76 | Gilford (WRB) | HTA | 125,000 | 65,000 | 60,000 | 92 | 5,028,217 |
| 326 | C | 12-76 | Lancaster-Amend. | A-N | 5,608 | 5,608 | 0 | 0 | 5,028,217 |
| 327 | D | 1-77 | Nashua | WPBW | 16,500 | 16,500 | 0 | 0 | 5,028,217 |
| 328 | C | 1-77 | Tilton-Northfield | WPBW | 37,500 | 37,500 | 0 | 0 | 5,028,217 |
| 329 | C | 1-77 | Merrimack | HEA | 8,500 | 8,500 | 0 | 0 | 5,028,217 |
| 330 | C | 2-77 | Winni. Int. (WRB) | SEA | 170,950 | 98,000 | 72,950 | 43 | 5,101,167 |
| 331 | C | 2-77 | Wolfeboro-Amend. | HTA | 44,700 | 44,700 | 0 | 0 | 5,101,167 |
| 332 | R | 3-77 | Bay District (WRB) | R-F | 26,105 | 22,724 | 3,381 | 15 | 5,104,548 |
| 333 | D | 3-77 | Derry | EEI | 156,900 | 156,900 | 0 | 0 | 5,104,548 |
| 334 | D | 3-77 | Hopkinton | A-N | 168,500 | 131,000 | 37,500 | 29 | 5,142,048 |
| 335 | D | 3-77 | Concord-Amend. | EEI | 42,590 | 20,000 | 22,590 | 115 | 5,164,638 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 336 | D | 3-77 | Milford | A-N | 568,472 | 450,000 | 118,472 | 26 | 5,283,110 |
| 337 | D | 4-77 | New London | A-N | 230,000 | 230,000 | 0 | 0 | 5,283,110 |
| 338 | C | 4-77 | Claremont | D-H | 15,300 | 15,300 | 0 | 0 | 5,283,110 |
| 339 | D | 4-77 | Stratford | HTA | 62,500 | 62,500 | 0 | 0 | 5,283,110 |
| 340 | D | 4-77 | Exeter | EEI | 146,500 | 146,500 | 0 | 0 | 5,283,110 |
| 341 | R | 5-77 | Derry | HTA | 3,800 | 3,800 | 0 | 0 | 5,283,110 |
| 342 | D | 5-77 | Antrim | A-N | 139,000 | 115,000 | 24,000 | 21 | 5,307,110 |
| 343 | D | 5-77 | Wilton | Keyes | 105,250 | 84,000 | 21,250 | 25 | 5,328,360 |
| 344 | D | 5-77 | Strafford Co. | Green | 25,650 | 25,650 | 0 | 0 | 5,328,360 |
| 345 | C | 5-77 | W. Paugus-WRB | W&H | 147,500 | 90,000 | 57,500 | 64 | 5,385,860 |
| 346 | R | 5-77 | Jaffrey | W&H | 69,300 | 64,300 | 5,000 | 8 | 5,390,860 |
| 347 | C | 5-77 | Lebanon-Amend. | M&E | 28,000 | 14,000 | 14,000 | 100 | 5,404,860 |
| 348 | C | 5-77 | Lebanon-Amend. | M&E | 46,700 | 22,000 | 24,700 | 112 | 5,429,560 |
| 349 | C | 5-77 | Lebanon-Amend. | M&E | 10,000 | 10,000 | 0 | 0 | 5,429,560 |
| 350 | D | 5-77 | Stewartstown | Eberhard | 25,000 | 25,000 | 0 | 0 | 5,429,560 |
| 351 | D | 5-77 | Stewartstown | Eberhard | 46,000 | 46,000 | 0 | 0 | 5,429,560 |
| 352 | C | 6-77 | Franklin-WRB | Maguire | 10,970 | 10,970 | 0 | 0 | 5,429,560 |
| 353 | C | 6-77 | Lebanon | M&E | 17,800 | 10,000 | 7,800 | 78 | 5,437,360 |
| 354 | C | 6-77 | Dover | HTA | 47,500 | 47,500 | 0 | 0 | 5,437,360 |
| 355 | D | 6-77 | Newmarket | WPBW | 171,000 | 171,000 | 0 | 0 | 5,437,360 |
| 356 | C | 6-77 | Warner-Amend. | A-N | 46,075 | 31,414 | 14,661 | 47 | 5,452,021 |
| 357 | D | 6-77 | Salem | WPBW | 254,570 | 254,570 | 0 | 0 | 5,452,021 |
| 358 | R | 6-77 | Pittsburg | WPBW | 19,800 | 19,800 | 0 | 0 | 5,452,021 |
| 359 | R | 6-77 | Swanzey | D-H | 42,750 | 42,000 | 750 | 2 | 5,452,771 |
| 360 | D | 6-77 | Newport | HTA | 175,000 | 175,000 | 0 | 0 | 5,452,771 |
| 361 | C | 6-77 | Hinsdale | A-N | 92,966 | 92,966 | 0 | 0 | 5,452,771 |
| 362 | D | 7-77 | Bow | EEI | 72,000 | 72,000 | 0 | 0 | 5,452,771 |
| 363 | C | 7-77 | Durham | HTA | 126,800 | 126,800 | 0 | 0 | 5,452,771 |
| 364 | R | 7-77 | Dalton | D-H | 21,560 | 21,560 | 0 | 0 | 5,452,771 |
| 365 | D | 7-77 | Portsmouth | WPBW | 358,000 | 358,000 | 0 | 0 | 5,452,771 |
| 366 | C | 8-77 | Winchester | A-N | 112,546 | 105,000 | 7,546 | 17 | 5,460,317 |
| 367 | C | 8-77 | Weare | A-N | 21,340 | 21,340 | 0 | 0 | 5,460,317 |
| 368 | C | 8-77 | Merrimack | HEA | 12,800 | 12,800 | 0 | 0 | 5,460,317 |
| 369 | D | 8-77 | Merrimack | HEA | 39,600 | 39,600 | 0 | 0 | 5,460,317 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 370 | D | 8-77 | Colebrook | WPBW | 53,600 | 53,600 | 0 | 0 | 5,460,317 |
| 371 | C | 8-77 | Pemi-WRB | ECJ | 38,500 | 38,500 | 0 | 0 | 5,460,317 |
| 372 | C | 8-77 | Farmington-Amend. | A-N | 8,600 | 4,000 | 4,600 | 115 | 5,464,917 |
| 373 | C | 9-77 | Franklin-WRB | SEA | 299,663 | 221,000 | 78,663 | 36 | 5,543,580 |
| 374 | D | 9-77 | Merrimack | A-N | 124,512 | 124,512 | 0 | 0 | 5,543,580 |
| 375 | D | 9-77 | Rochester | Green | 593,386 | 593,386 | 0 | 0 | 5,543,580 |
| 376 | R | 10-77 | Goffstown-Amend. | HTA | 49,000 | 38,000 | 11,000 | 29 | 5,554,580 |
| 377 | D | 10-77 | Walpole | SEA | 194,450 | 194,450 | 0 | 0 | 5,554,580 |
| 378 | D | 10-77 | Bethlehem | A-N | 190,000 | 158,000 | 32,000 | 20 | 5,586,580 |
| 379 | D | 10-77 | Hillsborough | A-N | 225,600 | 217,200 | 8,400 | 4 | 5,594,980 |
| 380 | D | 11-77 | Hanover | HTA | 256,575 | 256,575 | 0 | 0 | 5,594,980 |
| 381 | D | 11-77 | Newfields-Amend. | SEA | 7,500 | 6,000 | 1,500 | 25 | 5,596,480 |
| 382 | D | 11-77 | Littleton | EEI | 111,000 | 111,000 | 0 | 0 | 5,596,480 |
| 383 | D | 12-77 | Claremont | W&H | 811,140 | 530,000 | 281,140 | 53 | 5,877,620 |
| 384 | C | 12-77 | Winni. WRB-Amend. | SEA | 48,006 | 21,000 | 27,006 | 129 | 5,904,626 |
| 385 | R | 12-77 | Lancaster | A-N | 78,000 | 42,000 | 36,000 | 86 | 5,940,626 |
| 386 | D | 12-77 | Nashua | A-N | 571,395 | 571,395 | 0 | 0 | 5,940,626 |
| 387 | D | 12-77 | Franklin-WRB | WPBW | 20,000 | 20,000 | 0 | 0 | 5,940,626 |
| 388 | R | 2-78 | Lincoln | EEI | 59,000 | 59,000 | 0 | 0 | 5,940,626 |
| 389 | D | 2-78 | Carroll Co. | A-N | 101,500 | 101,500 | 0 | 0 | 5,940,626 |
| 390A | D | 5-77 | Plymouth | W&H | 401,800 | Town released engineer - no negotiations | | | |
| 390B | D | 2-78 | Plymouth | EEI | 342,600 | 342,600 | 59,200 | 17 | 5,999,826 |
| 391 | D | 3-78 | Conway Prec. | COM | 226,451 | 153,300 | 73,151 | 48 | 6,072,977 |
| 392 | C | 3-78 | Meredith-WRB | W&H | 123,500 | 123,500 | 0 | 0 | 6,072,977 |
| 393 | D | 3-78 | Meriden Vill. | D-H | 52,000 | 52,000 | 0 | 0 | 6,072,977 |
| 394 | R | 4-78 | Wakefield | Morgenroth | 20,000 | 20,000 | 0 | 0 | 6,072,977 |
| 395 | D | 4-78 | Hampton | WPBW | 8,100 | 8,100 | 0 | 0 | 6,072,977 |
| 396 | D | 4-78 | Swanzey | D-H | 115,000 | 115,000 | 0 | 0 | 6,072,977 |
| 397 | R | 4-78 | Sunapee | EEI | 65,000 | 65,000 | 0 | 0 | 6,072,977 |
| 398 | R | 4-78 | Pelham | DB&T | 57,725 | 57,225 | 500 | 1 | 6,073,477 |
| 399 | C | 4-78 | Gorham | M&E | 308,900 | 205,000 | 103,900 | 51 | 6,177,377 |
| 400 | D | 4-78 | Whitefield | A-N | 216,500 | 216,500 | 0 | 0 | 6,177,377 |
| 401 | D | 5-78 | Bennington | D-H | 20,000 | 20,000 | 0 | 0 | 6,177,377 |
| 402 | R | 5-78 | Rockingham Co. | WPBW | 24,000 | 24,000 | 0 | 0 | 6,177,377 |

PARTIAL RECORD OF ENGINEERING SERVICES CONTRACTS
EXECUTED UNDER RSA 149:4-XIII

| CONTRACT NUMBER | CONTRACT TYPE | DATE | PROJECT | ENGINEER | FEE REQUESTED | FEE AGREED TO | DIFFERENCE | PERCENT OF AGREED FEE | CUMULATIVE DIFFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 403 | C | 5-78 | Strafford Co. | Green | 29,050 | 29,050 | 0 | 0 | 6,177,377 |
| 404 | C | 5-78 | Bow | EEI | 3,400 | 3,400 | 0 | 0 | 6,177,377 |
| 405 | D | 6-78 | Woodsville | EEI | 101,000 | 101,000 | 0 | 0 | 6,177,377 |
| 406 | R | 7-78 | Piermont | EEI | 39,500 | 39,500 | 0 | 0 | 6,177,377 |
| 407 | C | 7-78 | Keene | ECJ | 31,515 | 31,515 | 0 | 0 | 6,177,377 |
| 408 | C | 7-78 | Concord STP | EEI | 427,600 | 350,000 | 77,600 | 22 | 6,254,977 |
| 409 | R | 8-78 | Lebanon | DCP&B | 172,000 | 92,300 | 79,700 | 86 | 6,334,677 |
| 410 | C | 8-78 | Gunstock | HTA | 4,200 | 4,200 | 0 | 0 | 6,334,677 |
| 411 | D | 8-78 | Conway Prec.-Amend. | CDM | 20,000 | 20,000 | 0 | 0 | 6,334,677 |
| 412 | D | 8-78 | Winchester | A-N | 97,200 | 97,200 | 0 | 0 | 6,334,677 |
| 413 | D | 8-78 | Peterborough | D-H | 12,900 | 12,900 | 0 | 0 | 6,334,677 |
| 414 | R | 8-78 | Meredith | EEI | 50,000 | 50,000 | 0 | 0 | 6,334,677 |
| 415 | R | 9-78 | Salem | W&S | 12,000 | 12,000 | 0 | 0 | 6,334,677 |
| 416 | C | 9-78 | Merrimack | A-N | 8,650 | 8,650 | 0 | 0 | 6,334,677 |
| 417 | D | 10-78 | Merrimack | A-N | 219,478 | 195,187 | 24,291 | 12 | 6,358,968 |
| 418 | C | 10-78 | Hampton | WPBW | 3,500 | 3,500 | 0 | 0 | 6,358,968 |
| 419 | C | 10-78 | Laconia | HTA | 19,560 | 19,560 | 0 | 0 | 6,358,968 |
| 420 | R | 11-78 | Conway | A-N | 51,415 | 51,415 | 0 | 0 | 6,358,968 |
| 421 | C | 12-78 | Antrim | A-N | 150,429 | 139,000 | 11,429 | 8 | 6,370,397 |
| 422 | C | 1-79 | Concord | CDM | 566,537 | 476,505 | 90,032 | 19 | 6,460,429 |
| 423 | D | 1-79 | Merrimack | A-N | 65,700 | 65,700 | 0 | 0 | 6,460,429 |
| 424 | R | 1-79 | Nashua | A-N | 148,300 | 28,900 | 119,400 | 413 | 6,579,829 |
| 425 | C | 2-79 | Milford | A-N | 370,000 | 370,000 | 0 | 0 | 6,579,829 |
| 426 | D | 2-79 | Northumberland | A-N | 119,212 | 119,212 | 0 | 0 | 6,579,829 |
| 427 | C | 3-79 | Jewett Brook (WRB) | HTA | 49,600 | 49,600 | 0 | 0 | 6,579,829 |
| 428 | C | 3-79 | Hanover | HTA | 59,300 | 58,400 | 900 | 1 | 6,580,729 |

| | | |
|---|---|---|
| ENGINEERS: | CDM | - Camp, Dresser & McKee, Inc. |
| | WPBW | - Wright, Pierce, Barnes & Wyman |
| | HNTB | - Howard, Needles, Tammen & Bergendoff |
| | A-N | - Anderson-Nichols & Co., Inc. |
| | FGK | - Fenton G. Keyes Associates |
| | EEI | - Environmental Engineers, Inc. |
| | CEM | - C. E. Maguire, Inc. |
| | M&E | - Metcalf & Eddy, Inc. |
| | SEA | - SEA Consultants, Inc. |
| | McKenna | - McKenna Associates |
| | Durgin | - John Durgin |
| | Green | - Green Engineering Affiliates, Inc. |
| | HHB | - Hayden, Harding & Buchanan, Inc. |
| | Collins | - James P. Collins Associates |
| | W&H | - Whitman & Howard, Inc. |
| | HTA | - Hoyle, Tanner & Associates, Inc. (formerly A. B. Reed - ABR) |
| | W&S | - Weston & Sampson |
| | C&R | - Coffin & Richardson |
| | HEA | - Hamilton Engineering Associates, Inc. |
| | H&S | - Hazen & Sawyer |
| | FS&T | - Fay, Spofford & Thorndkie |
| | RKM | - Rollins, King, McKone |
| | Morgenroth | - Morgenroth & Associates, Inc. |
| | ECJ | - E. C. Jordan Co., Inc. |
| | D-H | - Dufresne-Henry Engineering Corp. |
| | BDO | - Bethel, Duncan & O'Rourke, Inc. |
| | R-F | - Rist-Frost Associates |
| | DB&T | - Davis, Benoit & Tessier |

SUMMARY TOTALS 428 Contracts executed

264 Contracts agreed on requested scope and fee as initially proposed by engineer (61.9%).

Total Cumulative Difference $6,580,729

Twelve initial failures to negotiate with originally selected engineer (2.8%). In each case, negotiations with second engineer selected were successful.

## SEWERS AND FACILITIES MONTHLY STATUS REPORT

TO: R. Hill, Comm. Chmn.; D. Collins, L. Collins, R. Cruess, H. Donahue, T. Frost, D. Allen
R. Grossman, W. Healy, R. Livingston, G. Page, S. Leavenworth, R. Nylander, R. Seufert

ABBREVIATIONS:

AP = Approved, or approval
AEA = Awaiting EPA approval
A-N = Anderson-Nichols
APE = Awaiting proposal from engineer
B = Out to Bid
(B) = Boston office
BR = Being reviewed by WS&PCC
BS = To be bid soon
CDM = Camp, Dresser & McKee
CEM = C. E. Maguire, Inc.
CH = County Home
CHL = Chlorination
CMT = Comments sent to ENG
CNA = Contract not awarded
CON = Contract
COS = Completion expected on schedule
C&R = Coffin & Richardson
D = Design
D-H = Dufresne-Henry Eng. Corp.
DD&T = Davis, Benoit & Tessier
DCPB = Donnelly, Conklin, Phipps & Buzzell
DNS = Delay in review because of Need Survey
EA = Environmental Assessment
EEI = Environmental Engineers, Inc.
EIS = Environmental Impact Statement
ENG = Consulting Engineer
ENS = Energy Study
EPA = Environmental Protection Agency
ER = Engineer revising report/design
ES = Environmental Survey
EXT = Extended to
FGK = Fenton G. Keyes Associates
FM = Force Main
FP = Facilities Plan
FST = Fay, Spofford & Thorndike
CLD = Costello, Lomasney & deNapoli
EXP = Expect
GAN = Grant Acc. by Munic.
G&C = Governor & Council
GAE = Grant application at EPA
GNM = Grant not signed by municipality
HAM = Hamilton Engineering
HH&B = Hayden, Harding & Buchanan
HNTB = Howard, Needles, Tammen & Bergendoff
HTA = Hoyle, Tanner & Associates
H&S = Hazen & Sawyer
IC = Industrial connection
I/I = Infiltration/inflow analysis
INT = Interceptor
IR = Interim report
IS = Inquiry as to Status
JORD = E. C. Jordan Co., Inc.
LEA = Linenthal, Eisenberg, Anderson
LTR = Letter
M&E = Metcalf & Eddy
MORG = Morgenroth & Associates
MWE = Meeting with Engineer
NA = Not applicable
NB = Not bid
ND = Negative declaration by EPA
NE = Bid, but contract not executed
NGA = No grant application
NTP = Notice to proceed
NV = Town did not vote funds
OD = Overdue or incomplete
P-I = Pre Step I; (P-II, P-III)
PCC = Pre-construction conference
P/C = Primary clarifier
PL = Project list
POS = Plan of Study
PRI = Primary STP
PS = Pump station
PH = Public Hearing
R = Report
IH = Informational Hearing
PE = WS&PCC Const. Project Eng.
RE = WS&PCC Review Eng
RAA = Requires A-95 approval (Federal Clearinghouse)
R-F = Rist-Frost Associates
REM = Reminder sent to ENG re
REQ = Request sent to ENG re
REV = Revision, or revising
RJF = Ronald J. Eberhard
SSES = Sewer System Evaluation Survey
RRP = Request for revised proposal
S = Sewers
S-I = Project still in Step I; (S-II)
SC = Substantially complete
SE = Sewer extension
SEA = SEA Consulting Engineers
SEC = Secondary STP
SIP = Spray irrigation project
STM = Special Town Meeting
STP = Sewage treatment facility
SWT = Storm water treatment
S/S = Sewer/storm water separation
TF = Trickling filter
TM = Town meeting
US = User charge study
V = Town has voted funding of project
VE = Value engineering
W&H = Whitman & Howard
W&S = Weston & Sampson
WAT = Warrant Article provided to town or city
WPBW = Wright, Pierce, Barnes & Wyman
WRB = Winnipesaukee River Basin Project
[ ] = Document incorrectly dated
( ) = Project approved by WS&PCC
* = Changed or new item

STEP I - MUNICIPAL FACILITIES REPORT

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|---|---|---|---|---|---|---|---|---|---|
| PH 134-01 | (Bay District (WRB)) | 2/23/77 | 2/10/77 | 3/17/77 | 3/30/77 | 7/27/77 | R-F | AP *SSES AP 10/4, *CON Amend AP 10/4 | AEA |
| PH 227-01 | Conway | 11/17/78 | 11/28/78 | 1/5/79 | 1/19/79 | 1/10/80 | A-N | 50% AP 5/21 | *ER |
| PB 221-01 | Dalton | 7/12/77 | 9/9/77 | 10/17/77 | 10/21/77 | 7/28/78 | D-H | Subsurface AP Expected Soon | BR |
| TM 167-01 | Enfield | 5/28/76 | 6/11/76 | 7/8/76 | 7/20/76 | 7/15/77 | MBE | *Eng to resub new POS | |
| FI 247-01 | Epping | | | | | | D-H | *new POS to be sub soon | *ER |
| 249-01 | Franklin | | | | | | | | |
| 179-01 | Glencliff | | | | | | | | |
| JG 113-01 | Goffstown | 10/17/77 | 3/11/78 | | | | HTA | MWT 6/5 *Eng to revise and resub | P-I |
| | | | | | | | | | *ER |
| 248-01 | Haverhill Precinct | | | | | | | | |
| PB 238-01 | Jaffrey | 5/18/77 | 5/27/77 | 6/16/77 | 6/23/77 | 8/7/78 | WSH | LTR 5/16 Resub 7/12 | BR |
| PB 110-01 | Keene | 1/16/78 | | | | 1/15/79 | CEM | 1/1 AP,5/28 *1/1 modification plans and specs sub 9/20 | *BR |
| FI 228-01 | Lancaster | 12/15/77 | 12/30/77 | 2/27/78 | 3/7/78 | 4/11/79 | A-N | 75% Sub 5/24 *SSES to be conducted this fall | |
| GN 226-01 | Lebanon | 8/3/78 | 8/7/78 | 9/5/78 | 9/19/78 | 1/12/80 | DCPB | SWT, 50% MWE 7/25 *Sludge study Con amend AP | |
| GN 183-01 | Lincoln | 2/1/78 | 2/10/78 | 3/29/78 | 4/6/78 | 7/20/79 | EEI | *PH 9/20, awaiting transcript | ER |
| PH 213-01 | (Londonderry) | 4/9/76 | 4/21/76 | 5/11/76 | 5/19/76 | 6/30/77 | HTA | AP | AEA |
| | CON Amendment | 4/10/78 | | | | 9/7/78 | | RESUB, 1/9 AP 6/8 | AEA |
| PB 192-01 | (Manchester) | 11/15/76 | 8/18/76 | 12/6/76 | 12/7/76 | 6/5/77 | CLD | Phase I INT, PH 5/9, AP | *AEA |
| PB 192-01 | Manchester | | | | | | | Phase II, S/S | |
| FI 240-01 | Meredith | 8/29/78 | 8/29/78 | 9/29/78 | 10/5/78 | 2/18/80 | EEI | 50% *PH 11/15, Final to be sub soon | |
| PH 235-01 | Merrimack | NFF | | | | | A-N | STP, 75%, Eng to submit soon | ER |
| | (Merrimack) | NFF | | | | | W-H | Reeds Ferry SSES *AP 8/24 | *AP |
| FI 165-01 | (Milton) | 10/15/75 | 12/31/76 | 1/28/76 | 1/29/76 | 8/8/77 | MORG | AP, to EPA 1/3/79, EPA CMT 5/31 | AEA |
| TM 188-01 | Monroe | 8/3/76 | 10/14/76 | 11/8/76 | 11/16/76 | 6/30/78 | JORD | Final sub 7/27 | *BR |
| JG 241-01 | Nashua | 2/1/79 | 6/7/79 | 6/26/79 | *7/5/79 | GMH110 | A-N | S/S | |
| 229-01 | Newbury | | | | | | | | P-I |

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|---|---|---|---|---|---|---|---|---|---|
| PH 147-01 | (Ossipee) | 4/15/76 | 5/5/76 | 5/26/76 | 6/1/76 | 4/27/77 | HTA | *AP 9/7, await ND | |
| TS 127-01 | Pelham | 4/10/78 | 4/8/78 | 5/3/78 | 6/13/78 | 9/30/79 | D&T | 50% Public Meeting 9/17 *M&E 10/22 Payments held | *AEA |
| TS 244-01 | Piermont | 7/11/78 | 7/19/78 | 8/12/78 | 8/21/78 | 10/17/79 | EEI | V 3/13/79, 50% | |
| FI 223-01 | (Pittsburg) | | | | | | WP | AP, to EPA 10/30, ND 4/18 | AEA |
| 242-01 | Plaistow | | | | | | | | |
| TM 243-01 | Rockingham CH | 5/9/78 | 6/30/78 | | | GMH240 | WP | | P-I |
| TS 230-01 | Rye | 6/12/79 | 208 Funding | | | | WP | *40% *Citizen's Adv. Com. meeting 10/17, Sanitary Survey complete | GAE |
| FI 250-01 | Salem | | | | | | WP | Regionalization, *POS submitted to EPA | |
| 231-01 | Sanbornton | | | | | | | | |
| TM 178-01 | Seabrook | 12/15/75 | 5/4/76 | 5/26/76 | 6/1/76 | 3/28/77 | | *Engineering Contract terminated | P-I |
| JG 163-01 | Somersworth | 8/11/76 | 10/27/76 | 11/22/76 | 11/24/76 | 6/1/79 | HTA | PH on sludge stdy 7/17 | |
| GN 224-01 | Sunapee | 4/10/78 | 4/21/78 | 5/12/78 | 5/19/78 | 5/14/79 | EEI | PH 6/28 M&E, Cmts. 8/3 *Final copy sent to EPA | *ER ER |
| TM 175-02 | Wakefield | 4/3/78 | 5/9/78 | 6/7/78 | 6/16/78 | 10/11/79 | MORG | M&E 7/2, site inspection 7/19 | |
| JG 148-02 | Weare | 7/26/79 | NFF | | | | | Step I, Con Amend, *PH & V 9/20/79 | *P-III |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 173-02 | Bath | | | | | | | STP, INT, NV | |
| PH | 134-02 | Bay District (WRB) | | | | | | R-F | INT, Proposal Pending S-I | P-II |
| TS | 136-01 | Bedford | | | | | | A-N | Alt. Study; POS to EPA 6/23/78 | P-II |
| PH | 220-01 | Belmont | 9/21/76 | 4/22/77 | 6/16/77 | 7/5/77 | 2/1/78 | EEI | INT, 90%, Final Plans sub 5/28 | ER |
| PB | 218-02 | Bennington | 5/9/78 | 5/22/78 | 6/15/78 | 6/21/78 | 1/17/79 | D-H | STP, 100% SUBM. 5/14 *OMTS 10/5 | ER |
| PB | 143-02 | Bethlehem | 10/20/77 | 8/12/77 | 3/24/78 | 4/3/78 | 8/1/79 | A-N | STP, Int 75% AP 5/2 | |
| PB | 185-01 | Bow | 7/1/77 | 6/17/78 | 8/3/78 | 8/28/78 | 5/25/79 | EEI | INT, FP AP, 100% plans & specs 6/26 | ER |
| | 164-02 | Canaan | | | | | | | STP, INT,NV | P-II |
| FI | 177-02 | Carroll CH | 2/24/78 | 3/15/78 | 4/20/78 | 2/14/78 | 2/14/79 | A-N | STP, *Final plans submitted 9/13 | *ER |
| | 134-02 | Center Harbor (WRB) | See Bay District | | | | | | INT, STP | P-II |
| JG | 114-02 | Claremont | 12/15/77 | 12/19/77 | 4/5/78 | 4/11/78 | 10/13/79 | WBH | STP, Rec'd Con 1 3/20, Con 2-6 9/17, Con 7 9/28 | ER |
| FI | 144-02 | Colebrook | 8/19/77 | 9/22/77 | 3/24/78 | 4/4/78 | 4/4/79 | WP | STP, 75% M&E 3/6, Rec'd Final Plans 4/4 *Final Review Soon | ER |
| FI | 144-02 | Colebrook | 8/19/77 | 9/22/77 | 3/24/78 | 4/4/79 | 4/4/79 | WP | SSES, Final Report Sub 6/1 | ER |
| PB | 157-02 | (Concord) | 11/10/76 | 9/23/76 | 11/3/76 | 11/4/76 | 7/7/78 | CDM | INT Con 1,AP 5/25 | S-III |
| PB | 157-02 | Concord | 11/10/76 | 9/23/76 | 11/3/76 | 11/4/76 | 7/7/ 78 | CDM | Con 2, Outskirt S/S (later funding) | ER |
| PB | 157-02 | Concord | 11/10/76 | 9/23/76 | 11/3/76 | 11/4/76 | 7/7/78 | CDM | Con 3, Downtown S/S, Final Sub 5/29 | ER |
| PB | 157-02 | Concord | 11/10/76 | 9/23/76 | 11/3/76 | 11/4/76 | 7/7/78 | CDM | Con 4, P.S., Final Sub 6/8 | ER |
| PH | 227-02 | Conway | | | | | | | SWT, INT | S-I |
| PH | 237-01 | Conway Precinct | 3/10/78 | 8/11/78 | 11/29/78 | 12/2/78 | 8/29/79 | CDM | INT, STP, 40% M&E & OMTS, 8/17, SSES to be resubmitted | |
| | 221-02 | Dalton | | | | | | | STP, INT | S-I |
| TS | 194-02 | Derry | 3/9/77 | 3/11/77 | 3/17/77 | 3/22/77 | 1/1/79 | EEI | *portion of PH being redesigned, 70% | *ER |
| FI | 200-02 | Dover | 9/30/76 | 12/9/76 | 1/24/77 | 1/26/77 | 11/22/77 | WP | STP, Await Final Plans,*SSES Phase A work being conducted | ER |
| CB | 161-04 | Durham | *9/24/79 | | | | | HTA | Int Con AP 7/19 | P-II |
| | 167-02 | Enfield | | | | | | | INT | S-I |
| FI | 130-02 | Exeter | 4/29/77 | 6/30/77 | 7/21/77 | 7/29/77 | 3/31/79 | EEI | STP, 75% Final Plans Rec'd 6/19, *Final M&E 11/5 | ER |

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|---|---|---|---|---|---|---|---|---|---|
| JG 205-02 | (Gilford) | 7/23/76 | 10/18/76 | 1/10/77 | 1/18/77 | 1/13/78 | HTA | INT., Con 3 & 4 AP 5/15 | S-III |
| JG 184-01 | Gilford | 7/23/76 | 10/18/76 | 1/10/77 | 1/18/77 | 1/13/78 | HTA | S, PS *Resub 6/28 Con 1,2 & 3 | BR |
| JG 246-01 | Gilford | | | | | | | INT, Gunstock | |
| 179-02 | Glencliff | | | | | | | STP | P-I |
| JG 113-02 | Goffstown | 3/28/77 | 3/30/77 | 5/3/77 | 5/17/77 | 5/12/78 | HTA | INT, Hold Pending Cost Effective Analysis | ER |
| PB 146-01 | Grafton CH | 5/11/76 | 8/23/76 | 10/28/76 | 11/1/76 | 8/31/78 | EEI, | FM, Final Plans expected soon | ER |
| 195-01 | Hampton | 5/28/79 | | | | GAM=270 | WP | SE, 5th & 6th St. (PR#9) *Not to be done | |
| FI 195-01 | Hampton | 5/28/79 | | | | GAM=270 | WP | Northeast INT (PR #8, 12, 20) *Pub info hearing 9/20, Start Design Soon | |
| TS 115-03 | Hanover | 11/14/77 | 12/3/77 | 3/24/78 | 4/3/78 | 6/17/79 | HTA | STP, *30%, Final Plans & Specs Rec'd 9/19 | *DR |
| PB 128-02 | (Haverhill (Woodsville)) | 6/15/78 | 2/22/77 | 5/12/78 | 5/20/78 | 10/13/78 | EEI | STP, *AP 9/13/79 | *AP |
| PB 128-02 | (Haverhill (Woodsville)) | 6/15/78 | 2/22/77 | 5/12/78 | 5/20/78 | 4/11/79 | EEI | S, *AP 9/13/79 | *AP |
| JG 248-02 | Haverhill Precinct | | | | | | | STP, INT | |
| 120-02 | Hillsborough | 10/25/77 | 8/4/77 | 3/24/78 | 3/30/78 | 3/30/79 | A-N | STP, INT, FP supp sub. 7/31 | BR |
| 187-02 | Hooksett | | | | | | HTA | STP, INT, NV | |
| PH 165-02 | (Hopkinton) | 3/10/77 | 2/7/77 | 4/20/77 | 5/4/77 | 2/28/78 | A-N | STP, INT, PWE 6/4 Being Redesigned | ER |
| JG 112-02 | Hudson (CON 4) | | | | | | CLD | PS, INT, S, *CMT 9/12/ & 10/2 | *ER |
| 238-02 | Jaffrey | | | | | | | STP | S-I |
| PB 110-02 | Keene | 12/20/76 | 12/22/76 | 2/2/77 | 3/4/77 | 9/5/78 | JORD | STP, Con 2, Final plans sub 5/18 | BR |
| JG 222-01 | (Laconia (WRB)) | 9/21/76 | 10/5/76 | 11/22/76 | 11/24/76 | 7/11/78 | HTA | INT, AP 11/30 CON 1A Being Redesigned | AEA |
| JG 206-02 | Laconia (WRB) | | | | | | WH | CON 2 & 4 *Redesign Sub. 9/27 | *DR |
| JG 206-02 | Laconia (WRB) | | | | | | WH | CON 3 *Being Redesigned | *ER |
| 209-01 | (Laconia (WRB)) | | | | | | W-H | PS, *AP 10/1/79 | *AEA |
| 228-02 | Lancaster | | | | | | | S/S | S-I |
| 226-02 | Lebanon | | | | | | | SWT | S-I |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 183-02 | Lincoln | | | | | | | STP, INT | S-I |
| TS | 129-02 | Littleton | 11/22/77 | 12/2/77 | 3/24/78 | 3/31/78 | 9/26/79 | EEI | STP, SOS *Design Completion pending SSES,CON Amend AP, 9/26 | ER |
| TS | 129-02 | Littleton | 11/22/77 | 12/2/77 | 3/24/78 | 3/31/78 | 9/28/79 | EEI | Hobbs *M&E 9/12 Final plans to be sub soon | *ER |
| | 213-02 | Londonderry | | | | | | | STP, INT | S-I |
| | 192-02 | Manchester | | | | | | | INT | S-I |
| GM | 189-01 | Marlboro | 12/21/76 | 12/22/76 | 2/2/77 | 3/28/77 | 9/19/78 | JORD | S&INT, Expect CON AM, IS 4/11 | ER |
| | 240-02 | Meredith | | | | | | | INT | S-I |
| PM | 219-02 | Meriden Village | 3/24/78 | 5/16/78 | 6/8/78 | 6/22/78 | 4/18/79 | D-M | STP, INT, 75% AP *M&E 9/18 Final Sub expected soon | ER |
| PM | 215-03 | (Merrimack) | 8/25/77 | 9/22/77 | 2/14/78 | 3/2/78 | 8/29/78 | MMM | INT CON 14, (Babcock Brook) *AP 9/25 | *AP |
| PM | 215-03 | Merrimack | 10/4/78 | 9/22/77 | 2/12/78 | 3/2/78 | 8/30/79 | A-M | Nattcook INT, CON 18, SOS, *M&E, Final Plans submitted 10/4 | |
| PM | 215-02 | Merrimack | | | | | | | INT, So. Merrimack | |
| PM | 235-01 | Merrimack | 9/20/77 | 5/11/79 | Ret 6/5/79 | | GAM+180 | A-M | STP, Grant denied until FP Completion | ER |
| FI | 166-02 | Milton | | | | | | | STP, INT, Proposal delay LTR 1/5/79, PHOS limits to be resolved w/E. | P-III |
| | 188-02 | Monroe | | | | | | | STP, INT, Y 5/24/78 | S-I |
| PB | 158-02 | Nashua | 12/27/77 | 1/3/78 | 6/21/78 | 6/29/78 | 10/28/79 | A-M | STP, *E OMTS to EPA 8/2 | ER |
| PB | 158-02 | Nashua | 12/27/77 | 1/3/78 | 6/21/78 | 6/29/78 | 10/28/79 | A-M | INT, *Final Plans sub 9/12 | *ER |
| | 241-02 | Nashua | | | | | | | SMT | S-I |
| JG | 145-01 | Newfields | 6/27/75 | 8/18/75 | 10/22/75 | 10/24/75 | 5/1/77 | SEA | STP, CON 1, *OMTS 9/10 and 9/20, SC | *ER |
| JG | 145-01 | Newfields | 6/27/75 | 8/18/75 | 10/22/75 | 10/24/75 | 5/1/77 | SEA | INT, PS CON 2 & 3, SC | *ER |
| TS | 182-01 | (Newington) | 2/2/77 | 2/28/77 | 4/6/77 | 4/15/77 | 2/9/78 | WBH | STP, INT, AP 10/11 | ALA |
| TS | 162-02 | Newmarket | 6/10/77 | 6/23/77 | 8/3/77 | 8/4/77 | 8/4/78 | WP | STP, Await Final Plans | ER |
| PM | 169-02 | Newport | 6/22/77 | 6/23/77 | 10/27/77 | 11/3/77 | 1/3/77 | MTA | STP, S, SOS AP 3/1, M&E 4/27 IS 8/1 | ER |
| JG | 153-01 | (Northfield (WRB)) | 9/29/76 | 10/6/76 | 11/22/76 | 11/24/76 | 5/23/77 | EEI | S/S, INT, AP by EPA | ER |
| JM | 152-02 | Northumberland | 2/1/79 | 4/20/79 | 5/31/79 | 6/7/79 | GAM365 | A-M | INT, PS, *Pub Participation Hearing 9/24 | |
| | 147-02 | Ossipee | 4/24/79 | | | | | MTA | STP, INT | |
| | 127-02 | Pelham | | | | | | | STP, INT | S-I |

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|---|---|---|---|---|---|---|---|---|---|
| FI 223-02 | Pittsburg | | | | | | | STP, INT | |
| PH 132-02 | Plymouth | 2/10/78 | 11/3/77 | 3/24/78 | 3/30/78 | 9/25/79 | EEI | STP, 75% Ap 5/23, OMTS 6/4 | P-II |
| PH 132-02 | Plymouth | 2/10/78 | 11/3/77 | 3/24/78 | 3/30/78 | 9/25/79 | EEI | S *75% AP 9/10 OMTS 10/1 | ER |
| FI 196-02 | Portsmouth | 7//20/77 | 7/28/77 | 8/19/77 | 8/29/77 | 6/1/80 | WP | STP, S, 50% AP 5/3 | ER |
| 170-02 | Raymond | | | | | | | STP, INT | ER |
| FI 122-02 | Rochester | 9/27/77 | 9/26/77 | 3/24/78 | 3/30/78 | 12/30/79 | Green | STP, 50% AP 7/24 | P-II |
| FI 122-02 | Rochester | 9/27/77 | 9/26/77 | 3/24/78 | 3/30/78 | 12/30/79 | Green | S, 50% AP 7/25 | |
| 142-02 | Rollinsford | | | | | | | S/S, INT | |
| 230-02 | Rye | | | | | | | STP, INT | P-II |
| 193-02 | Salem | 6/10/79 | 6/14/77 | 7/15/77 | 7/26/77 | 1/17/79 | WP | STP, INT, Complete Plans sub. 3/1 | P-I |
| GN 212-01 | Sarbornton (WRB) | 12/4/75 | 6/8/76 | 7/8/76 | 7/13/76 | 12/1/78 | R-F | INT, | BR |
| 231-02 | Sarbornton | | | | | | | INT | BR |
| 178-02 | Seabrook | | | | | | | STP, INT | P-I |
| 163-02 | Somersworth | | | | | | | S/S | P-II |
| TM 131-01 | Stewartstown | 5/26/77 | 5/2/77 | 6/25/77 | 7/1/77 | 9/27/78 | RJE | PS, INT *AP 8/27 | S-I |
| TM 217-01 | Stewartstown-Canaan VT | 5/26/77 | 5/2/77 | 6/25/77 | 6/1/77 | 7/1/78 | RJE | STP in VT, *AP 8/27, I-M Agreement signed 9/24 | *AP |
| PB 172-02 | Stratford | 4/14/77 | 4/20/77 | 5/17/77 | 6/1/77 | 5/27/78 | HTA | OMT 5/23 | AP |
| 224-02 | Sunapee | | | | | | | INT | ER |
| PB 191-01 | Swanzey | 4/7/78 | 5/18/78 | 6/30/78 | 7/11/78 | 5/7/79 | D-H | STP, INT, PS, OMTS 7/19, *Final Plans Exp soon | S-I |
| GN 154-01 | Tilton (WRB) | 9/2/76 | 9/22/76 | 11/3/76 | 11/5/76 | 4/3/77 | W-H | S/S, INT, CON Amend Expected | *ER |
| GN 190-01 | Troy | 12/20/76 | 12/22/76 | 1/28/77 | 2/24/77 | 3/31/78 | JORD | PS, STP, 90% *M&E 9/13, to be redesigned | ER |
| GN 190-01 | Troy | 12/20/76 | 12/22/76 | 1/28/77 | 2/24/77 | 3/31/78 | JORD | INT, Con 9 & 11 Final specs rec'd 6/11 | *ER |
| 175-02 | Wakefield | | | | | | | STP, INT | BR |
| PH 180-01 | Walpole | 10/13/77 | 4/25/78 | 11/1/78 | 11/15/78 | 11/15/79 | SEA | PS, INT, I/I in progress *M&E 9/13 50% | S-I |
| PB 168-02 | Whitefield | 4/19/78 | 5/9/78 | 6/9/78 | 6/19/78 | 9/12/79 | AN | STP, INT, 50% AP 6/6 | ER |
| JG 117-02 | Wilton | 5/12/77 | 6/1/77 | 8/3/77 | 8/22/77 | 11/25/78 | FGK | INT, 75%, Final Plans OMT 10/1 | *ER |
| JG 140-03 | Winchester | 8/21/78 | 12/21/78 | Grant Ret. 2/1 | | GAM+365 | A-N | PS, INT, *EA Sub 8/24 | *BR |
| 128-01 | Woodsville | See Haverhill | | | | | | | |

STEP III - MUNICIPAL FACILITIES REPORT

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|---|---|---|---|---|---|---|---|---|---|---|
| JP | 126-03 | Antrim | 12/6/78 | 12/18/78 | 1/18/79 | 1/26/79 | 1/4/81 | A-N | STP, CON 1, Awarded 4/20, NTP 4/26 | *40% |
| JP | 126-03 | Antrim | 12/6/78 | 1/18/79 | 1/26/79 | 1/26/79 | 1/4/81 | A-N | INT, CON 2, Awarded 4/20, NTP 4/26 | *40% |
| | 173-03 | Bath | | | | | | A-N | STP, INT | S-I |
| | 134-03 | Bay District (WRB) | | | | | | | INT | P-II |
| | 136-02 | Bedford | | | | | | | | |
| | 211-02 | Belmont (WRB) | | | | | | | INT | P-III |
| | 220-02 | Belmont | | | | | | | INT Funding Fiscal 1980 | P-III |
| | 218-03 | Bennington | | | | | | | INT | S-II |
| | | | | | | | | | STP | S-II |
| | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 7/7/79 | A-N | STP, INT, CON 1 | SC |
| LF | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 7/7/79 | A-N | CON 2 | *85% |
| LF | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 3/21/80 | A-N | CON 3 | *70% |
| LF | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 7/7/79 | A-N | CON 4 | *35% |
| LF | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 7/7/79 | A-N | CON 5 | *75% |
| LF | 111-02 | Berlin | 12/1/76 | 2/11/77 | 2/28/77 | 3/22/77 | 7/7/79 | A-N | CON 6 | *SC |
| | 143-03 | Bethlehem | | | | | | | STP, INT | S-II |
| RC | 185-02 | Bow | 5/26/78 | | | | | EEI | PS, INT (Construction under I-89 90% complete) | S-II |
| | 164-03 | Canaan | | | | | | | STP, INT | P-II |
| | 177-03 | Carroll CH | | | | | | | STP | S-II |
| | 134-03 | Center Harbor (WRB) | See Bay District | | | | | | INT | P-II |
| RC | 135-02 | Charlestown | 9/22/76 | 11/12/76 | 12/20/76 | 12/23/76 | 8/2/78 | WP | CON 1 - Lagoons, CON 2 - sewers | SC,SC |
| | 114-03 | Claremont | Prior Approval | | | | | | Wash. St. INT CON awarded | |
| | 114-04 | Claremont | | | | | | | STP | |
| | 144-03 | Colebrook | | | | | | | STP | S-II |
| RC | 157-03 | Concord | 7/25/78 | 8/2/78 | 8/23/78 | 8/31/78 | 8/5/81 | EEI | STP, CON AP 11/14 | S-II |
| | | | | | | | | | | *35% |

STEP III - MUNICIPAL FACILITIES REPORT

Date: October 5, 1979

| | PE. NO. | CITY OR TOWN | CONTRACT START DATE | GRANT SUBMIS TO EPA | GRANT APPROVAL BY EPA | GRANT ACCEPTED BY MUNIC. | CONTRACT COMPL. DATE | ENG. | REMARKS | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 157-04 | Concord | 1/30/79 | 4/26/79 | 6/15/79 | 6/20/79 | | CDM | INT, S/S, Phase I | |
| | 157-04 | Concord | | | | | | CDM | INT, S/S, Phase II | |
| | 227-03 | Conway | | | | | | | STP, INT | P-III |
| | 237-02 | Conway Precinct | | | | | | | STP, INT | S-I |
| | | | | | | | | | | S-II |
| | 221-03 | Dalton | | | | | | | STP, INT | |
| | 194-03 | Derry | | | | | | | STP,INT,PM | S-I |
| LF | 199-02 | Dover Point | 6/3/77 | 6/6/77 | 6/30/77 | 7/15/77 | 4/26/79 | HTA | INT, PS, CON 1, CON 1A | S-II |
| LF | 199-03 | Dover | 6/3/77 | 7/7/77 | 10/5/77 | 10/5/77 | | HTA | CON 2 | SC,SC |
| | | | | | | | | | | SC |
| LF | 199-03 | Dover | 6/3/77 | 7/7/77 | 10/5/77 | 10/6/77 | | HTA | CON 3 | |
| LF | 199-03 | Dover | 6/3/77 | 7/7/77 | 9/5/77 | 10/6/77 | | HTA | CON 3A | *05% |
| LF | 199-03 | Dover | 6/3/77 | Not Federally Funded | | | | HTA | CON 4 | *50% |
| | 200-03 | Dover | 6/3/77 | | | | | | S Rehab | *90% |
| | | | | | | | | | STP | S-I |
| | 200-04 | Dover | | | | | | | STP | |
| JP | 161-03 | Durham | 7/14/77 | 7/15/77 | 7/21/77 | 8/9/77 | 1/24/80 | HTA | STP | |
| | 161-05 | Durham | | | | | | | INT | *85% |
| | 167-03 | Enfield | | | | | | | INT | P-II |
| | 130-03 | Exeter | | | | | | | STP,INT,S/S | S-I |
| | 195-02 | Franklin (WRB) | | | | | | | INT, S/S | S-II |
| | | | | | | | | | | P-III |
| JO | 203-02 | Franklin (WRB) | 9/19/77 | 10/22/76 | 12/15/76 | 12/15/76 | 10/18/79 | SEA | STP | |
| JO | 204-02 | Franklin (WRB) | 7/22/77 | 6/1/77 | 6/22/77 | 7/14/77 | | CDM | INT, CON B Awarded 11/14 | *99% |
| JO | 204-02 | Franklin (WRB) | 7/22/77 | 6/1/77 | 6/22/77 | 7/14/77 | | CDM | CON A 12/11 | *95% |
| | 239-02 | Franklin (WRB) | 3/7/79 | 4/18/79 | 6/13/79 | | | WP | Training Center *Bid 8/14, to be redesigned & rebid | *93% |
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | INT, 1A, P.S. | |
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 1B | *99% |
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 1C | *99% |
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6//76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 2A, Bid Opening 6/12 | *99% |
| | | | | | | | | | | 4% |

STEP III - MUNICIPAL FACILITIES REPORT

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| PE. | NO. | CITY OR TOWN | CONTRACT START DATE | GRANT SUBMIS TO EPA | GRANT APPROVAL BY EPA | GRANT ACCEPTED BY MUNIC. | CONTRACT COMPL. DATE | ENG. | REMARKS | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 2B | *2% |
| JO | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 3 Bid 7/31 *NTP 10/4/79 | *NTP |
| | 205-02 | Gilford (WRB) | 12/22/76 | 2/6/76 | 4/20/76 | 4/21/76 | 1/14/79 | HTA | CON 4 ENG REV | |
| | 184-02 | Gilford | | | | | | | INT | S-II |
| | 246-02 | Gilford | | | | | | | Gunstock INT | P-II |
| | 179-03 | Glencliff | | | | | | | STP | P-I |
| | 113-03 | Goffstown | | | | | | | STP, INT | S-II |
| LF | 123-03 | Gorham | 4/26/78 | 5/29/78 | 6/21/78 | 6/27/78 | 2/6/81 | MBE | STP | *45% |
| LF | 123-03 | Gorham | | | | | 4/7/80 | MBE | Int CON 77-2 | *SC |
| LF | 123-03 | Gorham | | | | | 3/3/80 | MBE | CON 77-3 | *SC |
| LF | 123-03 | Gorham | | | | | 3/3/80 | MBE | CON 77-4 | *SC |
| | 146-02 | Grafton CH | 5/2/79 | | | | | EEI | PS & FM, CON Proposal AP 4/5 | S-II |
| | 195-02 | Hampton | | | | | | | INT | S-II |
| RC | 115-03 | Hanover | 3/30/79 | 4/11/79 | 6/29/79 | 7/10/79 | NTP+540 | HTA | PS & INT | *PB |
| | 115-04 | Hanover | | | | | | | S Rehab | |
| | 115-05 | Hanover | | | | | | | STP | S-II |
| | 128-03 | Haverhill (Woodsville) | 7/17/79 | *9/19/79 | | | | | STP | *GAE |
| | 128-04 | Haverhill (Woodsville) | 7/17/79 | *9/19/79 | | | | | INT | *GAE |
| | 248-03 | Haverhill Precinct | | | | | | | | |
| | 120-03 | Hillsborough | | | | | | | STP, INT | S-II |
| LF | 139-02 | Hinsdale | 6/30/77 | 6/16/77 | 7/18/77 | 8/1/77 | 10/26/79 | A-M | STP, INT, 1/I rec'd 5/7/78 | *90 |
| | 187-03 | Hooksett | | | | | | | STP, INT | P-II |
| | 165-03 | Hopkinton | | | | | | | STP, INT | P-III |
| JP | 112-02 | Hudson | 9/23/76 | 7/9/76 | 9/9/76 | 9/13/76 | 12/21/78 | MORG | S/S, INT CON 1,2, &3 | *SC, SC, SC |
| | 112-02 | Hudson | | | | | | CLD | CON 4, Being redesigned, ENG Services Contract AP 8/10/79 | REV |



63-935 O—80——24

STEP III - MUNICIPAL FACILITIES REPORT

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|---|---|---|---|---|---|---|---|---|---|---|
| | 238-03 | Jaffrey | | | | | | | STP | |
| | 110-03 | Keene | 7/18/78 | 8/7/78 | 9/6/78 | 9/14/78 | 3/31/79 | JORD | CON 1 (Site Prep) | S-I |
| | 110-04 | Keene | | | | | | | STP, INT | SC |
| RC | 201-03 | Laconia | 10/11/78 | 11/16/76 | 1/10/77 | 1/12/77 | | HTA | Lakeport/Sheridan, CON 1, | S-II |
| | | | | | | | | | | *10% |
| RC | 201-03 | Laconia | | Not Federally Funded | | | | HTA | CON 2, Laterals (Paugus Bay) | *2% |
| | 201-05 | Laconia | | | | | | | INT, CON 1&2 (Opechee, Cove Areas) | P-III |
| | 206-02 | Laconia (WRB) | 5/13/77 | 2/6/76 | 5/28/76 | 6/8/76 | | WBH | CON 2 *Redesign Sub 9/27 | *DR |
| | 206-02 | Laconia (WRB) | 5/13/77 | 2/6/76 | 5/28/76 | 6/8/76 | | WBH | CON 3 Being Redesigned | |
| | 206-02 | Laconia (WRB) | 5/13/77 | 2/6/76 | 5/28/76 | 6/8/76 | | WBH | CON 4 Redesign submitted 9/27 | *DR |
| | 222-02 | Laconia (WRB) | 3/5/79 | 12/8/78 | 1/24/79 | 1/31/79 | NTP+540 | HTA | INT, Jewett Br. CON 1A *Redesign sub. 9/17 | *DR |
| | 222-02 | Laconia (WRB) | 3/5/79 | 12/8/79 | 1/24/79 | 1/31/79 | | HTA | CON 1B & 2, acquiring site | DR |
| | 228-03 | Lancaster | | | | | | S/S | S-I | |
| RC | 225-01 | Lebanon | 8/3/78 | 8/7/78 | 9/5/78 | 9/19/78 | 4/19/79 | MME | Meter Sta. CON 1977-2 | SC |
| | 183-03 | Lincoln | | | | | | | STP, INT | S-I |
| | 129-03 | Littleton | | | | | | | STP | S-II |
| | 181-01 | Londonderry | | | | | | HTA | INT Awaits Manchester 192-01, WAT | P-III |
| | 213-03 | Londonderry | | | | | | | STP, INT | S-I |
| | 192-03 | Manchester | | | | | | | INT, Phase I | S-I |
| | 192-04 | Manchester | | | | | | | INT, Phase II | |
| | 189-02 | Marlboro | | | | | | | INT | S-II |
| | 209-02 | Meredith (WRB) | 3/24/78 | 6/15/77 | 6/30/77 | 7/14/77 | | WBH | INT, CON 2 Redesign, CON 3 Ease. | |
| | 240-03 | Meredith | | | | | | | INT | S-I |
| | 219-03 | Meriden Village | | | | | | | STP, INT | S-II |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 102-01 | Merrimack | | | | | | | CON AMEND, OK to B | |
| LF | 215-02 | Merrimack | 10/11/78 | 9/6/77 | 3/24/78 | 4/5/78 | 9/5/79 | A-N | Souhegan Int. CON 11 | *SC |
| | 215-04 | Merrimack | | | | | | | INT, CC Estates CON 14 * Eng Services CON AP | P-III |
| | 215-05 | Merrimack | | | | | | | S. Merrimack INT | P-III |
| | 215-06 | Merrimack | | | | | | | Babcosic Brook Int | P-III |
| | 235-02 | Merrimack | | | | | | | STP | S-II |
| LF | 116-03 | Milford | 2/16/79 | 2/16/79 | 3/2/79 | 3/12/79 | NTP+760 | A-N | STP, CON 1, PCC 7/24 | *1% |
| LF | 116-03 | Milford | 2/16/79 | 2/16/79 | 3/2/79 | 3/12/79 | NTP+ 760 | A-N | INT, CON 2, PCC 7/23 | *10% |
| LF | 116-03 | Milford | 2/16/79 | 2/16/79 | 3/2/79 | 3/12/79 | NTP+760 | A-N | S/S, CON 3, PCC 7/20 | *20% |
| LF | 116-03 | Milford | 2/16/79 | 2/16/79 | 3/2/79 | 3/12/79 | NTP+760 | A-N | S/S, CON 4, PCC 7/20 | *20% |
| | 166-03 | Milton | | | | | | | STP, INT | P-II |
| | 188-03 | Monroe | | | | | | | STP, INT | S-I |
| JP | 236-01 | Nashua | 9/19/77 | 2/24/76 | 7/15/76 | 7/20/76 | 1/5/79 | A-N | S/S, CON 5 | *99% |
| JP | 158-04 | Nashua | | 8/8/77 | 10/4/77 | 10/5/77 | 10/8/78 | City | INT, Scott Burn | *Complete |
| | 158-05 | Nashua | | | | | | | STP | S-II |
| JP | 158-06 | Nashua | 10/26/78 | 3/12/79 | 3/29/79 | 4/18/79 | NTP+150 | HMM | Colerain INT | *Started |
| | 229-03 | Newbury | | | | | | | STP, INT | P-I |
| RC | 198-03 | New London | 2/1/79 | 8/25/78 | 3/13/79 | 3/16/79 | *2/14/81 | A-N | INT, CON 1, *Await SSES | *25% |
| RC | 198-03 | New London | 2/1/79 | 8/25/78 | 3/13/79 | 3/16 | *2/14/81 | A-N | PS, CON 2 | *15% |
| | 145-02 | Newfields | | | | | | | STP | S-II |
| | 182-02 | Newington | | | | | | | STP, CON 1 | |
| JP | 182-02 | Newington | | NFF | | | | WSH | INT & PS CON 2, Bid 8/1 | *Started |
| | 182-02 | Newington | | | | | | WSH | INT & PS CON 3 | |
| | 162-03 | Newmarket | | | | | | WSH | INT, S Rehab | S-II |
| | 162-04 | Newmarket | | | | | | | STP | S-II |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 169-03 | Newport | | | | | | | S. Rehab | S-II |
| | 169-04 | Newport | | | | | | | STP, INT | S-II |
| | 153-02 | Northfield (WRB) | 5/2/79 | 4/14/79 | 6/13/79 | 6/20/79 | | EEI | INT, S/S | P-III |
| | 152-03 | Northumberland | | | | | | | PS, INT | P-II |
| | 147-03 | Ossipee | | | | | | | STP, INT | S-I |
| | 127-03 | Pelham | | | | | | | STP, INT | S-I |
| JD | 210-02 | Pemigewasset (WRB) | 9/9/77 | 6/15/77 | 6/30/77 | 7/14/77 | 10/17/80 | JORD | INT, CON 1 | *60% |
| JD | 210-02 | Pemigewasste (WRB) | 9/9/77 | 6/15/77 | 6/30/77 | 7/14/77 | 11/11/80 | JORD | CON 2 & 3 | *28%, 93% |
| | 223-02 | Pittsburg | | | | | | | STP, INT | P-II |
| | 132-03 | Plymouth | | | | | | | S. Rehab | S-II |
| | 132-04 | Plymouth | | | | | | | STP, INT | S-II |
| | 196-03 | Portsmouth | | | | | | | S. Rehab | S-II |
| | 196-04 | Portsmouth | | | | | | | STP | |
| | 196-05 | Portsmouth | | | | | | | S/S | |
| | 170-03 | Raymond | | | | | | | STP, INT | P-II |
| | 142-03 | Rollinsford | | | | | | | S/S, INT | P-II |
| | 122-03 | Rochester | | | | | | | STP, INT, Phase I | S-II |
| | 211-04 | Rochester | | | | | | | Phase II, INT | |
| | 230-03 | Rye | | | | | | | STP, INT | S-I |
| | 212-02 | Sanbornton (WRB) | | | | | | | INT | S-II |
| | 231-03 | Sanbornton | | | | | | | INT | P-I |
| | 178-03 | Seabrook | | | | | | | STP, INT | S-I |
| | 163-03 | Somersworth | | | | | | | S/S | S-I |
| | 131-02 | Stewartstown | | *9/21/79 | | | | | PS, INT V, 5/20/78, *Eng Services Contract AP 8/27 | *OAE |
| | 217-02 | Stewartstown-Canaan VT | | *9/21/79 | | | | | STP, *Eng services CON AP 8/27 | *OAE |
| | 234-03 | Strafford CH | 5/15/78 | | | | | Green | STP | P-III |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 172-03 | Stratford | | | | | | | STP,INT,NV 3/14/78 | |
| | 224-03 | Sunapee | | | | | | | INT | S-II |
| | 191-02 | Swanzey | | | | | | DBH | INT & STP W. Swanzey V 3/14/78 | S-I |
| | 191-03 | Swanzey | | | | | | | N. Swanzey INT | S-II |
| | 154-03 | Tilton (MRB) | | | | | | | INT, S/S | |
| | 190-02 | Troy | | | | | | | STP, INT | S-II |
| | 175-03 | Wakefield | | | | | | | STP, INT | S-II |
| | 180-02 | Walpole | | | | | | | INT, PS | S-I |
| | 119-01 | Warner | | | | | | | CON Amendment Pending | S-II |
| | 148-02 | Weare | 8/17/77 | 8/31/77 | 3/24/78 | 4/20/78 | NTP+365 | A-N | STP | 99% |
| | 168-03 | Whitefield | | | | | | | STP, INT, *Step I Con Award Exec. 8/2 | |
| | 117-03 | Wilton | | | | | | | INT | S-II |
| RC | 140-02 | Winchester | 8/31/77 | 6/29/77 | 8/12/77 | 9/9/77 | 11/23/79 | A-N | STP, PS, S CON 1 & 2 | S-II |
| | 140-04 | Winchester | | | | | | | INT, PS (Ashuelot) | *99%, 99% |
| JP | 098-02 | Wolfeboro | 11/4/75 | 4/5/74 | 7/5/74 | 7/19/74 | 10/29/77 | HTA | STP, *Amend #6 (upgrading) Con AP | S-II |
| JP | 098-02 | Wolfeboro | 12/5/77 | 4/5/74 | 7/5/74 | 7/19/74 | 8/10/79 | HTA | S. Rehab | 99% |
| | | | | | | | | | | *SC |

NHWS&PCC
10/15/79 Page

ACTION REQUIRED AS A RESULT OF REVIEW OF MONTHLY STATUS REPORT

| EPA No. | Step | Place | Status | Action Required | Responsibility for Action | Remarks |
|---|---|---|---|---|---|---|
| 134-01 | 1 | Bay District-WRB | To EPA 3/12/79 | Approve | EPA | SSES to continue |
| 227-01 | 1 | Conway | 50% 5/21/79 | Submit | A-N | Due 1/10/80, 75% time gone |
| 221-01 | 1 | Dalton | Being reviewed | Approve | Design Review PB | |
| 167-01 | 1 | Enfield | In limbo-2 yrs. overdue | Submit PofS | M&E | |
| 247-01 | 1 | Epping | P-I | Submit PofS | D-H | |
| 113-01 | 1 | Goffstown | Engineer revising | Resubmit | HTA | |
| 238-01 | 1 | Jaffrey | Being reviewed 7/12/79 | Approve | Design Review PB | |
| 110-01 | 1 | Keene | Being reviewed 9/20/79 | Approve | Design Review PB | SSES specs |
| 228-01 | 1 | Lancaster | 75% 5/24/79 | Resubmit | A-N | Overdue 4/11/79 |
| 286-01 | 1 | Lebanon | 50% 7/25/79 | Submit | DCP&B | Due 1/12/80, 80% time gone |
| 183-01 | 1 | Lincoln | PH 9/20/79 | Submit | EEI | |
| 192-01 | 1 | Manchester | To EPA 7/79? | Approve | EPA | |
| 240-01 | 1 | Meredith | 50% 8/3/79 | Submit | EEI | Due 2/18/80, 71% time gone |
| 166-01 | 1 | Milton | To EPA 1/3/79 | Approve | EPA | |
| 188-01 | 1 | Monroe | Being Reviewed 7/27/79 | Approve | Design Review TM | |
| 241-01 | 1 | Nashua | 0% | Submit | A-N | Due 10/27/79, 87% time gone |
| 147-01 | 1 | Ossipee | To EPA 9/7/79 | Approve | EPA | |
| 127-01 | 1 | Pelham | 50% 9/17/79 | Submit | DB&T | Overdue 9/30/79 |
| 244-01 | 1 | Piermont | 50% 3/13/79 | Submit | EEI | Overdue 10/17/79 |
| 243-01 | 1 | Rockingham Co. Home | Grant to EPA 6/30/78 | Approve | EPA | 16 months at EPA |
| 230-01 | 1 | Rye | 40% 10/5/79 | None | - | Report Status |
| 178-01 | 1 | Seabrook | W&H Terminated | Vote funds | Town | |
| 163-01 | 1 | Somersworth | Being reviewed 7/17/79 | Approve | Design Review JG | |
| 224-01 | 1 | Sunapee | Engineer revising | Resubmit | EEI | |
| 175-02 | 1 | Wakefield | Overdue 10/11/79 | Submit | Morgenroth | |
| 136-01 | 2 | Bedford | Reserve Capacity Study | Submit PofS | A-N | Met 10/5/79 |
| 220-01 | 2 | Belmont | Being reviewed 5/28/79 | Approve | Design Review PH | |
| 143-02 | 2 | Bethlehem | 75% 5/2/79 | Submit | A-N | Overdue 8/1/79 |
| 185-01 | 2 | Bow | Being reviewed 6/26/79 | Approve | Design Review PB | |
| 177-02 | 2 | Carroll Co. Home | Being reviewed 9/13/79 | Approve | Design Review FI | |
| 114-02 | 2 | Claremont | Being reviewed 9/79 | Approve | Design Review JG | |
| 144-02 | 2 | Colebrook | Being reviewed 4/4/79 | Approve | Design Review FI | |
| 130-02 | 2 | Exeter | Being reviewed 6/19/79 | Approve | Design Review FI | |
| 184-01 | 2 | Gilford | Being reviewed 6/28/79 | Approve | Design Review JG | |
| 246-01 | 2 | Gilford-WRB | P-II | Select Engineer | WRB | |
| 146-01 | 2 | Grafton Co. Home | Engineer revising | Resubmit | EEI | |

ACTION REQUIRED AS A RESULT OF REVIEW OF MONTHLY STATUS REPORT

| EPA No. | Step | Place | Status | Action Required | Responsibility for Action | Remarks |
|---|---|---|---|---|---|---|
| 195-01 | 2 | Hampton | P-II | Submit Grant | W-P | |
| 115-02 | 2 | Hanover | Being reviewed 9/19/79 | Approve | Design Review TS | |
| 120-02 | 2 | Hillsborough | FP Supplement rec'd 7/31/79 | Approve | Design Review JG | |
| 112-02 | 2 | Hudson | Engineer revising | Resubmit | CL&d | |
| 110-02 | 2 | Keene | Being reviewed 5/18/79 | Approve | Design Review PB | |
| 189-01 | 2 | Marlboro | Engineer revising | Resubmit | ECJ | |
| 219-02 | 2 | Meriden Village | 75% 9/18/79 | Submit | D-H | |
| 215-03 | 2 | Merrimack | Being reviewed 10/4/79 | Approve | Design Review PH | Naticook Int. |
| 158-02 | 2 | Nashua STP | VE comments to EPA 8/2/79 | Comment | EPA | |
| 145-01 | 2 | Newfields | Engineer revising | Resubmit | SEA | |
| 122-02 | 2 | Rochester STP | 50% 7/24/79 | Submit | Green | |
| 191-01 | 2 | Swanzey | Engineer revising | Resubmit | D-H | |
| 190-01 | 2 | Troy | 90% 9/13/79 | Resubmit | ECJ | |
| 180-01 | 2 | Walpole | 50% 9/13/79 | Submit | SEA | Due 11/15/79 |
| 168-02 | 2 | Whitefield | 50% 6/6/79 | Submit | A-N | Due 9/12/79 |
| 117-02 | 2 | Wilton | 75% 10/1/79 | Resubmit | Keyes | |
| 140-03 | 2 | Winchester | Env. Assess. rec'd 8/24 | Comment | Design Review JG | |
| 239-02 | 3 | Franklin-WRB | Training Center | Re-bid | WRB | |
| 153-02 | 3 | Northfield-WRB | Grant 6/20/79 | Advertise | WRB | |
| 131-02 | 3 | Stewartstown | Grant to EPA 9/21/79 | Approve | EPA | |
| 217-02 | 3 | Canaan | Grant to EPA 9/21/79 | Approve | EPA | |
| 128-04 | 3 | Woodsville | Grant to EPA 9/19/79 | Approve | EPA | |
| 128-03 | 3 | Woodsville | Grant to EPA 9/19/79 | Approve | EPA | |

SUMMARY: Design Review 16 (+5); EPA 10 (+1); A-N 6 (-1); EEI 5 (-4); WRB 3 (+1); D-H 2 (+1); ECJ 2 (-2); SEA 2 (+1); 10 others 1 each (NC).

## Appendix 3

### REVIEW OF COSTS OF WINNIPESAUKEE RIVER BASIN PROGRAM PROJECTS COMPARED TO REGION I AND EPA NATIONAL PROJECTS

In January 1978, EPA published MCD-37 "Construction Costs for Municipal Wastewater Treatment Plants: 1973-1977" and in May 1978, MCD-78 "Construction Costs for Municipal Wastewater Conveyance Systems: 1973-1977". These publications are the result of review of EPA construction grant files for 536 treatment plant construction projects and 455 collector, interceptor, pumping station and force main projects in each of EPA's ten regional offices that were bid between 1973 and 1977.

In addition to construction costs, data on Step 1, Step 2, and the non-construction portion of Step 3 costs were collected and analyzed as a percentage of total construction costs. With regard to the non-construction Step 3 costs, particularly engineering fees and inspection fees, the reports both reveal a remarkable inconsistency between EPA regions as to percentages allowed by the different regions for these items.

STP - STEP 3 NON-CONSTRUCTION COSTS

| | LOW | HIGH | NATIONAL AVERAGE | |
|---|---|---|---|---|
| A/E Basic Fees | .0069 (Region 6) | .0486 (Region 10) | .0290 | .0414 |
| Other A/E Fees | .0034 (Region 10) | .0274 (Region 9) | .0124 | |
| Inspection | .0008 (Region 5) | .0357 (Region 1) | .0079 | |

SEWERS - STEP 3 NON-CONSTRUCTION COSTS

| | | | | |
|---|---|---|---|---|
| A/E Basic Fees | .0051 (Region 2) | .1298 (Region 3) | .0368 | .0481 |
| Other A/E Fees | .0037 (Region 6) | .0209 (Region 8) | .0113 | |
| Inspection | .0003 (Region 5) | .0531 (Region 7) | .0147 | |

Neither report has Step 3 non-construction A/E Basic Fees for Region I projects. The sewer report does not contain any A/E or inspection fees for Region 1 projects. One of the projects included in the STP report is the Franklin Regional Treatment Facility, which is incorrectly classified as a secondary treatment plant with nutrient removal.

Six Winnipesaukee River Basin Program project construction grant files were reviewed to ascertain how the construction costs as well as the non-construction costs of these projects compare with others in Region 1 (where possible) as well as nationally.

Of the 15 construction contracts bid under the six projects, only three of the low bids had costs which, when adjusted to the updated quarter covered by the reports, were in excess of the historical bid costs collected by EPA. These were the State School Pumping Station, the Winnisquam 30" Force Main (Contract 2) and Contract 6 of the Winnisquam Interceptor. Contract 6 had over 1100 feet of 60" sewer at a depth of greater than 32 feet included. The low bidder on Contract 2 has since been the low bidder on four additional construction contracts included in the program. On the remaining 12 contracts bids prices have consistently been considerably lower than the EPA adjusted prices, both for sewers and treatment facilities.

With regard to non-construction costs, EPA's survey came up with the following as a percentage for non-construction costs (NCC) to total construction costs (TCC):

| | STP Projects | Sewer Projects |
|---|---|---|
| STEP 1 | .0350 | .0386 |
| STEP 2 | .0850 | .0920 |
| STEP 3 | .1890 Region 1 | .1324 |
| TOTAL | .3050 Region 1 | .2630 |

For the Winnipesaukee Project, the Step 1 cost was .0014 percent of the total estimated construction cost. For the six projects reviewed, the Step 2 costs have ranged from .0198 to .0557 percent of the total bid construction cost, with the majority of the projects having Step 2 costs between .04 and .05 percent.

The total NCC for the five projects which either have been completed or are well along enough to project these costs are as follows:

| | |
|---|---|
| Laconia STP | .1120 vs. EPA .3050 |
| State School PS | .1866 vs. EPA .2630 |
| Tilton-Northfield INT | .0089 vs. EPA .2630 |
| Winnisquam By-Pass | .0734 vs. EPA .2630 |
| Franklin STP | .0597 vs. EPA .3050 |

The total project cost of the six projects is almost $28 million. The following is a summary of the projected or actual project costs as compared with the cost using EPA bid data adjusted and the non-construction costs in their reports:

LACONIA STP

| | | |
|---|---|---|
| Construction Cost | $2,318,603 | |
| NCC | 259,798 | |
| TOTAL | $2,578,401 | |
| EPA Construction | $3,292,800 | |
| NCC | 1,004,304 Region 1 | |
| TOTAL | $4,297,104 | |
| | | Savings $1,718,703 |

STATE SCHOOL PS

| | | |
|---|---|---|
| Construction Cost | $ 419,908 | |
| NCC | 78,341 | |
| TOTAL | $ 498,249 | |
| EPA NCC | $ 110,436 | Savings $ 32,095 |

TILTON-NORTHFIELD INTERCEPTOR

| | | |
|---|---|---|
| Construction Cost | $2,506,394 | |
| NCC | 222,555 | |
| TOTAL | $2,728,949 | |
| EPA Construction | $4,819,071 | |
| NCC | 1,267,416 | |
| TOTAL | $6,086,487 | Savings $3,357,538 |

FRANKLIN INTERCEPTOR

| | | |
|---|---|---|
| Construction Cost | $2,405,396 | |
| NCC | Incomplete - Construction about to start | |
| EPA Construction | 4,069,215 | |
| | | Savings Const only $1,663,819 |

WINNISQUAM BY-PASS

| | | |
|---|---|---|
| Construction Cost | $7,622,201 | |
| NCC | 559,267 | |
| TOTAL | $8,181,460 | |
| EPA Construction | $10,513,317 | |
| NCC | 2,765,002 | |
| TOTAL | $13,278,319 | Savings $5,096,851 |

FRANKLIN STP

| | |
|---|---|
| Construction Cost | $10,759,000 |
| NCC | 641,965 |
| TOTAL | $11,400,965 |

FRANKLIN STP (cont'd)

| | | |
|---|---|---|
| EPA Construction | $12,000,000 Region 1 | |
| NCC | 3,660,000 Region 1 | |
| TOTAL | $15,660,000 | Savings $4,259,035 |

TOTAL SAVINGS $16,128,041

With regard to project inspection costs, as stated earlier, EPA showed extremely wide variations as a percentage of construction cost. In New Hampshire, we have always been liberal with regard to fees for inspection. This shows up in the EPA report where Region 1 had the highest percentage for inspection for treatment plant projects of all Regions (0.357). We also have recognized that interceptor and sewer work require a higher percentage of construction cost for inspection than STP work. The sewer report also reflects this with the highest percentage at .0531.

The percentage of construction cost for inspection for the five substantially completed projects are as follows:

| | |
|---|---|
| Laconia STP | .0231 |
| State School PS | .0776 |
| Tilton-Northfield INT | .0211 |
| Winnisquam By-Pass | .0311 |
| Franklin STP | .0127 |

The following conclusions can be drawn from this review:

1. The construction costs for almost all contracts in the Basin Program have been substantially less than other comparable projects both in EPA Region 1 and in the EPA national program.

2. The total Non-Construction Costs for all of the projects in the Basin Program have been only a fraction of what historically has been allowed by both Region I and EPA nationally. These NCC percentages should have been higher due to the lower construction costs.
3. Competition for all of the construction contracts has been extremely sharp. Successful low bidders have returned for repeated assignments. This can only be attributed to the uniformity and quality of inspection which the Commission has established for the Winnipesaukee River Basin program. Contractors know in advance what the work conditions will be and have scaled their bids accordingly with the result that considerable savings have been realized.
4. The engineering fees for all aspects of the assignments have been substantially lower than the national average.
5. The inspection costs for the projects reviewed were all higher than the EPA national averages for the type of work involved. However, with the exception of the State School Pumping Station project, all inspection percentages were lower than the highest Region percentages in the reports. The low percentages shown in the reports add credence to the GAO Report criticism relating to lack of adequate inspection of EPA funded projects. The low construction bids received on most of the projects are a cause for the inspection percentages to be higher as stated in the second conclusion above.

APPENDIX 4

**Delegation**
**Agreement**
**Between The**
**New Hampshire**
**Water Supply and**
**Pollution Control Commission**
**And The**
**United States**
**Environmental Protection Agency**
**Region I**
**For Administration of**
**The Construction Grants Program**

**October 6, 1978**

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This Delegation Agreement is made on the sixth day of October, 1978, by and between William A. Healy, P.E., Executive Director (the "Executive Director") of the New Hampshire Water Supply and Pollution Control Commission (the "Commission") and William R. Adams, Jr., Regional Administrator (the "Regional Administrator") of the United States Environmental Protection Agency, Region I ("EPA").

Preamble. The scope and purpose of this Delegation Agreement is to provide for an orderly transfer of construction grant management activities and related procedures from the Federal Government to the State of New Hampshire. In undertaking this cooperative venture, the objective has been to develop a vehicle which would ensure that all Federal prerogatives under the Clean Water Act would remain intact and yet create an instrument of agreement which truly represents an "equal partnership" commitment by both EPA and the Commission. It is the strong conviction of representatives of both agencies who participated in the development of this document that a partnership commitment is essential if the end results are to be achieved; namely, orderly transfer of delegated functions, elimination of duplication of effort, and acceleration of work schedules. The parties to this Delegation Agreement are convinced that the framework necessary to the realization of these mutually-shared goals is contained in this document.

NOW, THEREFORE, the parties hereto agree as follows:

1. Nature of this Delegation Agreement. Although the ultimate responsibility for management of the Grant Program rests with EPA, EPA and the Commission are now making arrangements for EPA to delegate, and the Commission to accept, responsibility for identified functions under the construction grant program being administered under Title II of the Clean Water Act (the "Grant Program"). The Regional Administrator has reviewed the Commission's performance under the Grant Program to date, its present and proposed staffing and other relevant matters and has determined that the Commission now has the capacity to manage those identified functions now being delegated pursuant to this Delegation Agreement as to which such delegation is immediately effective (Stage A). Further, the Regional Administrator has determined that, if the Commission (a) hires and trains (with EPA assistance in training), the additional staff which the Commission has agreed to hire and train, and (b) fully performs its responsibilities under this Delegation Agreement, then the Commission will have the capacity to perform those additional identified functions now being delegated pursuant to this Delegation Agreement as to which delegations will become effective in two stages, that is on or about April 1, 1979 (for Stage B) and on or about October 1, 1979 (for Stage C), assuming all pre-conditions are met. These categories of functions are identified in Paragraphs 8 and 10 of this Delegation Agreement and in the Appendices hereto.

Concurrently with the execution of this Delegation Agreement, the Regional Administrator is also making a State Management Assistance Grant. This Delegation Agreement is incorporated by reference in the official grant agreement whereby such Grant is being made. The State Management Assistance Grant funds will enable the Commission to hire and train the new staff for a period of time prior to the effective dates of Stages B and C. It is understood that only functions expressly delegated pursuant to this Delegation Agreement or required hereunder will be eligible for funding under a State Management Assistance Grant.

2. Resources Needed by the Commission. Attached hereto are the following Appendices:

Appendix A: An organizational chart showing the existing structure of the Commission and staffing levels. Information concerning job descriptions, salary levels and percentages of time spent on matters related to the Grant Program has been sent to EPA previously in connection with the Commission's FY 78 program plan under Section 106 of the Clean Water Act.

Appendix B: An organizational chart showing the structure of the Commission after all hiring in connection with this Delegation Agreement has been completed.

Appendix C: Personnel resources needed to perform the state's portion of the Grant Program in New Hampshire including the functions delegated or proposed to be delegated hereunder.

Appendix D: Personnel whom the Commission needs to hire in order to more fully perform Stage A functions and also to perform functions associated with Stages B and C, together with pertinent information, as to job classification, salary levels, percentage of time to be spent on the Grant Program, etc., as well as certain projected budgetary totals for FY 79 and FY 80. Hiring and training for particular individuals who will perform Stage A functions shall begin immediately upon execution of this Delegation Agreement. Hiring and training of individuals who will perform Stage B and C functions shall precede the effective dates of Stage B and C functions.

Appendix E: Five year estimated cost projection.

Appendix F: Reassigned staff positions due to funding shifts.



63-935 O—80——25

3. Assurances by the Commission; Hiring and Retention of Personnel. The Commission shall endeavor to hire the personnel described in Appendix D, commencing immediately according to the schedule set forth on Appendix D. EPA finds that such personnel and the proposed salary ranges are the minimum necessary in order to qualify the Commission for the delegations in this Delegation Agreement. The Commission will notify EPA at the end of each month as to which personnel have been hired during that month. The Commission shall take all necessary steps to retain all personnel (including such promotions and salary increases as are needed to retain an experienced staff) so as at all times to be in a position to fully perform its responsibilities under this Delegation Agreement. The Commission shall make no significant organizational changes, nor shall it effect any significant reduction in staff resources which would impact upon delegated functions without prior consultation with EPA. It is understood that the number and types of personnel to be used by the Commission in performing delegated functions as shown on Appendix B represent the Commission's best present estimate of personnel needs. Based upon actual operating experience, these projected needs may vary from time to time in the future. Cost estimates and personnel requirements may be revised annually in connection with the State Management Assistance Grant.

4. Assurances by the Commission; Performance of Functions. The Commission hereby assures the Regional Administrator that in performing all of its mangement responsibilities under this Delegation Agreement, it will execute such responsibilities in conformance with the intent and substance of all applicable Federal laws, regulations, orders, policy issuances and guidelines, in keeping with the highest professional standards. As such requirements are amended or supplemented from time to time, the Commission will comply with all such amendments or supplements beginning on the effective date thereof.

5. Categories of Delegated Functions. The functions now or hereafter to be delegated consist of two categories: (a) those functions which are prerequisites for an official grant action by the Regional Administrator and which therefore require certification by the Commission as evidence of their having been completed ("Certifiable Functions"); and (b) those functions for which certification is not required, but which are supplemental or related to EPA's official grant file or must be performed according to EPA requirements ("Supplemental Program Functions").

6. Certifiable Functions. Whenever the Commission performs a set of Certifiable Functions, it shall so certify to EPA by means of the appropriate Grant Certificate on one or more of the forms attached as Appendices to this Delegation Agreement. In

addition, the Commission shall complete any required Checklists in the forms attached as Appendices to this Delegation Agreement or subsequently required by EPA and send such completed Checklists to EPA. EPA, after taking such steps as it may deem appropriate to assure the accuracy and/or completeness of such Grant Certificate and Checklists, may rely upon the contents of such Grant Certificate and Checklists as if EPA had performed such functions itself. A Grant Certificate shall be duly completed and executed by both the registered professional engineer who is responsible for conducting Certifiable Functions and the Executive Director or his designee. A Checklist need be executed only by a registered professional engineer. EPA may from time to time revise the form of any Grant Certificate or Checklist (and shall print the date of such revision on such Grant Certificate or Checklist) which the Commission shall thereafter adopt for use. EPA and the Commission shall maintain a current file of all Grant Certificates and Checklists in use. The Commission shall transmit to EPA all documentation which is needed by EPA in order to act upon the Commission's recommendation. Wherever EPA determines that a particular Checklist or other document need no longer be included with a particular Grant Certificate, it may permit the Commission to discontinue sending such document to EPA by specifically identifying it on a Grant Certificate as no longer being required to be sent to EPA. Whenever the Commission shall be unable to complete a particular Grant Certificate in full but the Commission nonetheless wishes to recommend that EPA approve a grant-related document, the Commission shall note an exception to its Grant Certificate and shall transmit with such Grant Certificate an explanation of its reasons for recommending EPA approval notwithstanding the particular deficiency. Whenever the Commission shall deem it necessary or desirable to obtain the advance approval of EPA as to a particular portion of a grant-related document, the Commission may send EPA documentation as to the matter in question, together with a duly executed Grant Certificate which pertains only to those items for which advance approval is being sought.

7. Functions Excluded from Delegation. It is understood that the Regional Administrator shall retain responsibility and primary authority, notwithstanding the provisions of this Delegation Agreement, for the following:

(a) Award of Step 1, Step 2, Step 3 and Step 2 + 3 grants and amendments thereto;

(b) Review of projects for determination regarding whether Environmental Impact Statements will be required under the National Environmental Policy Act of 1969, and the preparation and issuance of such statements or of negative declarations required by 40 CFR Part 6;

(c) Civil rights determinations, and enforcement, related to the Civil Rights Act of 1964 and Executive Order 11246 and other Federal requirements related to discrimination;

(d) Final dispute determinations under §35.960;

(e) Determinations of protests under §35.939;

(f) Resolution of construction grant audit exceptions;

(g) Determination that an overriding Federal interest exists in a particular project which requires greater Federal oversight or participation;

(h) Final processing and payment of requests for reimbursement under grants;

(i) Determinations which have the effect of obligating Federal grant assistance such as advance acquisition determinations pursuant to 40 CFR §35.925-18 and allowance of direct costs for advance acquisition of land, acquisition of operable treatment works and rate determination studies, all pursuant to 40 CFR §35.940-3; and

(j) Actions required to be performed by EPA as the responsible Federal Agency under other Federal statutes which cannot be delegated to a state.

8. Scope of Delegation. The Regional Administrator has reviewed the Commission's record in carrying out its responsibilities under the Grant Program, including its performance under prior delegation agreements. Based upon such review and upon an analysis of the information and assurances furnished EPA by the Commission in this Delegation Agreement, the Regional Administrator hereby determines that:

(a) As to the functions listed on Appendix G to this Delegation Agreement as Stage A Functions ("Stage A Functions"), the Commission now has the capacity to carry out such functions in a manner consistent with EPA requirements;

(b) As to the functions listed on Appendix G to this Delegation Agreement as Stage B Functions ("Stage B Functions"), and those functions listed on Appendix G to this Delegation Agreement as Stage C Functions ("Stage C Functions"), the Commission will have, at such time as the conditions set forth in Paragraph 9 have been fulfilled, the capacity to carry out such functions in a manner consistent with EPA requirements.

Accordingly, the Regional Administrator hereby delegates, and the Commission hereby agrees to accept delegation of, authority to perform all Stage A Functions, Stage B Functions and Stage C Functions. Certain special instructions, which the Commission agrees to follow, pertaining to such Functions, are contained in the Appendices relating thereto.

9. Effective Dates of Delegations; Conditions. The delegation of Stage A Functions is effective upon the execution of this Delegation Agreement. The delegations of Stage B and C Functions will become effective at such time as the Commission shall have fulfilled the following conditions and the Regional Administrator has acknowledged the fulfillment thereof in writing:

(a) Personnel identified on Appendix D as necessary to perform such Functions shall have been hired and fully trained, including sufficient on-the-job training to enable the Commission's staff to perform such functions substantially independently from EPA;

(b) The Commission shall have fulfilled all of its other responsibilities under all existing delegation agreements with EPA relating to the Grant Program; and

(c) All other EPA requirements relating to delegation arrangements have been fulfilled to date.

EPA and the Commission will jointly work towards the goal of seeing that such conditions are satisfied on or about April 1, 1979 (in the case of Stage B Functions) and on or about October 1, 1979 (in the case of Stage C Functions).

10. Supplemental Program Functions: In addition to carrying out the Certifiable Functions, the Commission shall hereafter carry out the Supplemental Program Functions specifically described in Appendix H to the Delegation Agreement.

11. Status of 1976 Certification Agreement Regarding the Procurement of Engineering Services. The Commission's expenses incurred after the date of this Delegation Agreement under the Certification Agreement Regarding the Procurement of Engineering Services dated March 3, 1976 shall be eligible for reimbursement under the State Management Assistance Grant. Such Certification Agreement is incorporated herein by reference.

12. Status of Previous Coordination Agreement. The Coordination Agreement between the Executive Director and the Regional Administrator dated December 23, 1977 is hereby superseded.

13. EPA Oversight of Specially-Designated Projects. From time to time, after advance consultation with the Commission, EPA may determine that an overriding Federal interest exists in a particular project which requires greater Federal oversight or participation than is customary. EPA shall thereupon, through the Regional Administrator, notify the Executive Director and shall also state generally the nature of the greater EPA role in such project. In such a case, the Commission shall not take any action which is inconsistent with the Regional Administrator's role.

14. EPA Oversight and Review. As stated in Paragraph 7, EPA shall be responsible for the award of grants and the making of payments thereunder. Accordingly, EPA shall exercise a general oversight of the Commission's conduct of its delegated responsibilities so as to assure itself that EPA may properly make such grant and payments. Such oversight shall consist generally of the following:

(a) On a random basis, EPA shall review documents submitted to it under this Delegation Agreement, including accompanying documentation, to assure itself that the EPA requirements have been met.

(b) EPA shall conduct periodic thorough reviews of the Commission's performance under this Delegation Agreement, quarterly until the delegations of all Stage B and C functions have become effective, and semi-annually thereafter. The scope of such reviews will generally address the thoroughness of Commission activities, timeliness of Commission actions, adequacy and completeness of documentation accompanying Grant Certificates, and such other matters as may bear upon the Commission's performance.

(c) EPA will review all periodic financial reports submitted pursuant to Paragraph 24 of this Delegation Agreement.

(d) EPA will closely monitor the nature and extent of bid protests, grant appeals and/or appeals by grant applicants pursuant to Paragraph 17 of this Delegation Agreement.

If, in connection with such overview, EPA determines that any particular action by the Commission or any practice of the Commission is not in keeping with the requirements of this Delegation Agreement, EPA shall notify the Commission as soon as practicable (in writing if appropriate). Whenever EPA shall request a written response from the Commission as to any such notification, the Commission shall respond within 20 working days and shall notify EPA in detail what steps, if any, have been taken to correct any deficiency or practice.

EPA shall generally accept the Commission's determination as to a particular matter if the determination represents a reasonable decision, in compliance with all applicable EPA requirements, and is based upon substantial evidence and documentation.

15. Pre-Disapproval Consultation. Whenever the Regional Administrator determines that a grant-related document does not comply with all applicable criteria for EPA approval, he shall so notify the Commission and allow the Commission an opportunity for consultation prior to any formal disapproval of such grant-related document. EPA and the Commission shall coordinate their contacts with grant applicants or recipients in resolving disputes. If the Commission and the Regional Administrator are still unable to agree, the Regional Administrator's determination shall be final.

16. Early Notice of Problems; Periodic Discussions. The Commission shall notify EPA of any significant problem arising during the management of the Grant Program which materially affects EPA's interests as soon as it comes to the attention of the Commission so as to facilitate joint action by EPA and the Commission in resolving such problem. In order to maximize the benefits of this Delegation Agreement and to work out procedural and other problems, the Regional Administrator and the Executive Director, or their designees, shall meet from time to time at a mutually convenient place to confer.

17. Protests, Appeals and Disputes. The manner in which disputes and appeals hereafter arising out of the Grant Program shall be handled is as follows:

(a) Section 939 Protests. Whenever a protest is filed under 40 CFR §35.939, the protest shall be handled in the manner provided for in such Section and the parties hereto shall perform their customary functions thereunder. It is understood that the Commission shall comply with any deferral of procurement action arising out of such process and shall comply with the terms of any final decision made by the Regional Administrator.

(b) Review of Commission Decisions. An aggrieved applicant or grantee may request the Regional Administrator to review findings, recommendations or certifications made and actions taken by the Commission under this Delegation Agreement, provided that such request is made within 15 days after such aggrieved applicant or grantee is informed of such findings, recommendations or certification. The final decision of the Regional Administrator in such matters may be appealed to the Administrator of EPA (the "Administrator") by the applicant or grantee as provided in 40 CFR §35.1050.

(c) Disputes between the Commission and EPA other than State Management Assistance Grant Disputes. Whenever a dispute shall arise solely between EPA and the Commission as to any matter covered by this Delegation Agreement (other than a dispute pertaining to a State Management Assistance Grant), after appropriate consultation and review of all pertinent facts, EPA's decision shall be the final administrative action on the matter.

(d) State Management Assistance Grant Disputes. Whenever any dispute shall arise between EPA and the Commission relating to a State Management Assistance Grant, the Regional Administrator's decision on the matter shall be final, subject to the right to take an appeal to the Administrator under 40 CFR §35.1050.

18. Reduction of Grant Amount; Suspension or Termination of Grants. As provided in 40 CFR §35.1045, if the Regional Administrator's evaluation of the Commission's performance or the management of the Grant Program or any of the activities authorized by this Delegation Agreement reveals that the Commission will not achieve agreed-upon goals or that its performance is otherwise unsatisfactory, the Regional Administrator shall seek to achieve satisfactory performance through mutual agreement. Any decision to effect any reduction, suspension or termination of the grant which would have a significant effect on the Commission's abilities to fulfill its responsibilities under this Delegation Agreement shall be made only after the public hearing requirements of Paragraph 23 have been met. At any hearing held pursuant to Paragraph 23, the Regional Administrator shall state for the record his reasons for considering any reduction, suspension or termination of the grant and the factual basis for such reasons. The Regional Administrator shall take all comments received at such hearing into account before making a final decision on the matter. In the event that such a reduction, suspension or termination becomes effective, EPA shall follow the provisions of Paragraph 22 regarding special termination arrangements. The Regional Administrator may make costs associated with continued performance of such activities unallowable. He may reduce the grant amount on a proportional basis or suspend or terminate the grant, in whole or in part, in accordance with 40 CFR §30.915 or §30.920 and any other provisions in this Delegation Agreement. As provided in 40 CFR §35.1050, a Regional Administrator's final decision in such matters may be appealed to the Administrator by the Commission.

19. Termination by the Commission. As provided in 40 CFR §30.920-2, the Commission has the right to terminate its work under a State Management Assistance Grant. If the Commission chooses to exercise that right, it will follow the provisions of Paragraphs 22 and 23 regarding special termination arrangements.

20. Initial Term of Agreement; Extensions. The initial term of this Delegation Agreement shall be five years unless such term is extended as provided below or work hereunder is terminated as provided in Paragraphs 18 and 19. The parties may, from year to year, extend the initial terms of this Delegation Agreement at the time each successive State Management Assistance Grant is awarded, provided that no such extension may extend the term to more than five years beyond the date of such Grant.

21. Amendments. This Delegation Agreement may be amended at any time by mutual agreement in writing (which may be an exchange of letters) and funding adjustments will be reflected in grant amendments. If a proposed amendment is deemed to be of major significance by either EPA or the Commission, such party may require that the public hearing requirements of Paragraph 23 be met before such amendment becomes final.

22. Special Termination Arrangements. In the event that any reduction, suspension or termination of a State Management Assistance Grant by EPA occurs under Paragraph 18 or the Commission elects to terminate its work under Paragraph 19, then, by implication, performance of functions under this Delegation Agreement may be affected, whether or not a formal written amendment is signed. EPA and the Commission agree that any termination of grant funds (and any accompanying re-assumption of the performance of any functions by EPA) should proceed in an orderly manner, without undue financial disruption to the Commission or its employees or any grantee, and without interruption or disruption of work on any treatment works project. Accordingly, any termination arrangement entered into by EPA and the Commission under 40 CFR §30.920 et seq. shall provide for at least the following:

(a) A reasonable time for phasing out the Commission's activities and financial commitments, generally to be not less than six months or the end of the Commission's then current fiscal year, whichever is the longer period;

(b) A reasonable process for re-assumption of functions by EPA, with due regard for the need to avoid programmatic and financial hardships to the Commission and its staff, including phasing out in a manner consistent with the Commission's planning cycle; and

(c) The need to continue technical and/or administrative assistance to grantees (which could be accomplished in some cases by a continuation of funding for certain on-going projects beyond the termination dates for the rest of such Grant).

23. Public Hearings on Changes in Delegation Agreement and Certain Grant Actions. Either EPA or the Commission may require that

a public hearing be held by EPA which follows EPA's then current regulations and guidelines before the final administrative action on any matter leading to:

(a) A substantial amendment to this Delegation Agreement (as provided in Paragraph 21);

(b) A reduction, suspension or termination of a State Management Assistance Grant which would have a significant effect on the Commission's abilities to fulfill its responsibilities under this Delegation Agreement (as provided in Paragraph 18); or

(c) A termination of work under this Delegation Agreement (as provided in Paragraphs 18 and 19).

24. Accounting and Audit Matters. Prior to the execution of this Delegation Agreement, EPA auditors have reviewed the accounting and recordkeeping system used by the Commission and have determined that such system is adequate for the purpose of maintaining a record of expenditures incurred by the State in performing delegated functions. The Commission's practice of remitting 5% of the amount of Federal program grants to the state treasury to cover state overhead may be continued. (See the Commission's letter to EPA dated September 13, 1978 and the memorandum dated September 28, 1978 from the Acting Regional Audit Manager, both such documents being Appendix FF to this Delegation Agreement.) The Commission shall at all times hereafter maintain such system (as it pertains to such expenditures) in effect in such a manner so as to prepare such reports of expenditures as may be required hereunder, or as may be otherwise requested by EPA. It is understood that the Commission may incur personnel costs in performing delegated Grant Program functions which are in excess of the amounts actually claimed as eligible for reimbursement under a State Management Assistance Grant. In accounting for the amounts actually claimed, it shall be sufficient for the Commission to demonstrate that the total amount of eligible costs equals or exceeds the amount actually claimed, so long as the total costs are derived from the time sheets regularly maintained by the Commission. (See the Commission's letter to EPA dated September 29, 1978, and the memorandum dated October 3, 1978, from the Chief of the Maine, New Hampshire and Vermont Engineering Section, both such documents being Appendix GG to this Delegation Agreement.) No material changes in such system may be made except after receipt of written approval by EPA. The Commission shall submit to EPA a quarterly summary of costs incurred by it in performing delegated functions, such report to be due within 30 days following the close of the calendar quarter. The format and content for such summary shall be as agreed upon in advance, after consultation. Such accounting system shall be subject to audit for a period of five years after the completion of each fiscal year pursuant to 40 CFR §30.805(c). Whenever auditors from EPA

or any other Federal agency shall request a response to comments upon any action taken, occurring under the Grant Program, whether taken by a grant applicant or recipient, a contractor, the Commission or EPA in reliance upon a Commission action, the Commission shall punctually review the situation in question and furnish such factual material and otherwise cooperate fully with EPA in documenting any requested response.

25. Freedom of Information Act. All applications, records, reports and other documents held by the Commission as part of an official grant file or otherwise a part of the administrative record of a grant decision, shall be deemed to be in the possession of EPA for purposes of the applicability of the Freedom of Information Act (5 USCA 552 et seq.). Accordingly, the Commission shall furnish copies of such documents upon request within the time periods allowed under said Act either to EPA to be processed and forwarded to the requesting party, or, at the request of EPA, directly to such party, charging EPA or such party only such costs as are allowed by said Act. This Paragraph is not intended to create any independent right of action against the Commission under said Act.

26. National Environmental Policy Act Matters. As stated in Paragraph 7 of this Delegation Agreement, EPA shall retain responsibility for (a) determining whether or not a particular project requires an environmental impact statement ("EIS"), (b) issuing either a negative declaration or an intent to prepare an EIS and (c) preparing and circulating any required draft and final EIS. Both parties shall cooperate to see that a decision on whether or not an EIS is required is made as early as possible in the planning of each project. At such time as the Commission believes that there is a project on the current priority list which may present a significant environmental impact, it will so inform EPA. The Commission and EPA shall jointly review all projects on each new priority list in order to determine if, in the judgment of either party, a project may present such a problem and shall jointly decide upon whatever arrangements as may be necessary to mitigate such impact or otherwise meet NEPA requirements. The Commission shall review all environmental assessments submitted to it on a priority basis. The Commission shall certify to EPA that in its judgment each such assessment meets all applicable requirements, including the requirement that such assessment address matters covered by each of the applicable federal statutes cited in 40 CFR §6.214. In connection with its certification, the Commission shall make a recommendation to EPA as to whether or not an EIS should be prepared on the project. In support of its recommendations, the Commission shall forward to EPA a brief summary of the potential environmental impacts of the project as reflected in the assessment and otherwise understood by the Commission. Such summary shall

constitute the Commission's environmental impact report. Prior to formally approving any facilities plan, the Commission shall wait until EPA has completed its NEPA review, i.e., 15 working days shall have elapsed following the issuance of a negative declaration by EPA, or 30 days shall have elapsed following the issuance of a final EIS by EPA and no referral to the Council on Environmental Quality shall have been made. In the event of such a referral, special arrangements shall be made by EPA and the Commission.

27. Congressional Inquiries. From time to time as such inquiries are received by EPA, the Commission shall cooperate with EPA in providing reasonable responses to Congressional inquiries, including providing copies of documents, factual material and other information within a time frame which is consistent with EPA's policy and practice of priority response to such inquiries. EPA shall endeavor to refer such inquiries directly to the Commission whenever a matter is directly or exclusively within the Commission's purview.

28. Public Participation During the Development of this Delegation Agreement. In satisfaction of the requirements of 40 CFR §35.1033, the Commission and EPA have taken the following steps (which steps were documented to EPA in detail by the letter dated August 16, 1978):

(a) Public Workshop. A public workshop on the Delegation Agreement was held August 8, 1978 in Concord, New Hampshire.

(b) Public Hearing. The full Commission held a public hearing on the Delegation Agreement in Concord, New Hampshire on August 9, 1978.

(c) Availability of Documents. A preliminary draft of this Delegation Agreement prepared by the Commission was made available to the public in advance of such workshop and hearing.

29. Training of Commission Personnel. The Commission and EPA shall work together to make all necessary arrangements to train personnel performing delegated functions so that such personnel are familiar with legal requirements, policies, procedures, and other matters in connection with delegated functions. EPA shall make its own personnel available from time to time (within reasonable limits) to conduct orientation workshops for such personnel (which could be held in Boston or elsewhere in conjunction with training of other states' personnel). EPA shall otherwise assist the Commission in effecting an orderly and timely transition into delegated functions, particularly in the period immediately following the initial delegation under this Delegation Agreement and also in the periods following each

delegation of additional functions. The Commission shall continuously determine the training needs of its personnel as such personnel are hired. In addition, EPA shall continuously evaluate work performed by the Commission in terms of additional training needed to remedy deficiencies. Expenses incurred by the Commission in training personnel to perform functions under this Delegation Agreement (including salary for on-the-job training), commencing approximately six to nine months prior to the formal delegation of a particular delegated function (as shown on Appendix D), shall be eligible for reimbursement under a State Management Assistance Grant.

30. Official Grant Files. EPA and the Commission intend to minimize paperwork and duplication of effort within the Grant Program. EPA and the Commission understand that EPA remains ultimately responsible for the conduct of the Grant Program and that EPA can be held accountable by the Congress and other federal agencies with oversight responsibilities. EPA will also be held accountable for its final administrative decisions in the Federal courts. Accordingly, both parties acknowledge the need to compile a proper and complete administrative record in connection with grant actions. This Delegation Agreement contemplates that the official grant file comprising the grant application, Grant Certificates, Checklists, accompanying support documentation, and other documents used as a basis for an official EPA decision will remain with EPA until further agreements for the disposition of such documentation are reached by the parties. It is the goal of both parties to minimize the transfer of paperwork from the Commission to EPA. The ultimate goal of both parties is to build the Commission's level of professional and administrative competence and experience to the point where only Grant Certificates (and no further documentation) will be sufficient documentation for EPA to be legally justified in relying upon in exercising its authority to make grants and grant payments (apart from NEPA matters). The Commission agrees that any documentation in its possession generated under the Grant Program will be available to EPA for inspection and/or copying upon request in connection with any official EPA purpose and that it will provide copies of such documents to EPA, without charge, upon request. Until further notice by EPA, current practices of copying EPA on correspondence shall be continued.

31. Reassignment of Existing Personnel due to Shift in Program Grant Funds. The Commission's program grant application under Section 106 of the Clean Water Act reflected the expenditure of $118,250 of Section 106 program grant funds for the administration of the Grant Program. In order to assure that the maintenance of effort provisions of Paragraph 33 are carried out, to the extent that such funds continue to be made available by EPA, the Commission will utilize such $118,250 in support of other programs. The Commission's plan for use of such funds (as required by 40 CFR §35.1030-4(a)(6)) is set forth on Appendix F. Appendix F indicates

that staffing for the following programs will be increased: (a) operation and maintenance, (b) monitoring, (c) municipal permits and (d) operator training. The Regional Administrator hereby tentatively approves such allocation. EPA and the Commission understand that the final allocation of such funds must be made concurrently with the development of a work program for the Commission's non-construction grant related water pollution control program as part of the Section 106 grant process. Accordingly, the final disposition of such reprogrammed funds will be made at that time.

32. Retention of Records; Access. The Commission shall keep and maintain for a period of five years (or for such further period of time as shall subsequently be required by EPA pursuant to 40 CFR §30.805 or otherwise) following final payment by EPA of grant funds allocated for a particular project, records of all actions taken by the Commission concerning such project in connection with its activities pursuant to this Delegation Agreement. Following such period, such records shall (except as noted below) be sent to the Federal Records Center for archival storage in accordance with labelling, packing and other instructions from EPA. Records relating to the determination of industrial cost recovery obligations shall be retained by the Commission until the cost recovery period for the project concerned shall have expired. The Commission shall afford access to such records at all reasonable times to EPA, the U.S. General Accounting Office and other concerned Federal agencies.

33. Maintenance of Effort at Least at FY 77 Level. The Commission hereby represents that the expenditures of non-Federal funds for recurrent expenses of the water pollution control programs operated by the State of New Hampshire in FY 77 amounted to $1,703,230. The comparable figure for FY 78 was $1,918,585. The projected figures are $2,446,176 for FY 79 and $2,782,301 for FY 80. The Commission understands that in order for it to be eligible for a State Management Assistance Grant in FY 79 and subsequent fiscal years, the Regional Administrator must first determine that the level of expenditures of non-Federal funds for non-recurrent expenses by the State (as shown by its projected budget for such fiscal year) must equal or exceed that for FY 77, unless the Regional Administrator determines (pursuant to 40 CFR §35.1016(a)) that a reduction in such expenditures is attributable to a general non-selective reduction in the programs of all executive branch agencies of the State. The Commission agrees to continue to maintain at least the same size State funded staff as it has at the date of this Delegation Agreement.

34. EPA Guidance Documents. EPA has furnished the Commission with copies of all statutes, regulation, handbooks, manuals, guidance memoranda and other documents relating to the Grant Program. Requirements

purporting to be "guidelines", "guidance", "estimates", or the like shall be interpreted as such in conducting the Commission's reviews. As such documents are revised, supplemented or replaced, EPA shall furnish the Commission with the appropriate revisions, supplements and replacements. The Commission shall conform its activities pursuant to the Delegation Agreement to the requirements set forth in such documents, as amended from time to time including, without limitation, the Program Operations Memoranda (POM Series) the Program Requirements Memoranda (PRM Series) and EPA's Handbook of Procedures, Construction Grants Program for Municipal Wastewater Treatment Works (first issued in February, 1976).

35. Use of EPA Forms. All forms used by EPA in connection with the Grant Program, including application forms, forms of authorizing resolutions, Checklists and other such forms have been reviewed by EPA and the Commission and the Commission shall hereafter use the most recent revisions of such forms. Whenever a form which is appropriate to a function covered by this Delegation Agreement is revised by EPA, EPA shall send an adequate supply of such newly-revised form to the Commission and the Commission shall distribute such form when appropriate for use by prospective grant applicants, grant applicants and grant recipients.

36. Assignment. The Commission shall not assign, in whole or in part, its interest in this Delegation Agreement and will not contract for resources to conduct functional construction grant program tasks without the prior written approval from EPA.

37. Notification; Responsible Officials. Unless specifically stated otherwise, whenever notification of any matter shall be required hereunder, such notification shall be sufficient if directed to the following persons at the address or telephone number shown below:

(a) For EPA:

Chief
Maine, New Hampshire & Vermont Engineering Section
Municipal Facilities Branch
Room 2300
JFK Federal Building
Boston, MA 02203 Telephone: (617)223-0437

(b) For the Commission:

Executive Director
New Hampshire Water Supply and Pollution Control Commission
105 Loudon Road
Concord, New Hampshire 03301 Telephone:(603)271-3503

Such persons are hereby authorized to make revisions in Grant Certificates and Checklists by an exchange of letters. The above-named EPA official shall have authority to authorize the Commission to discontinue sending specifically identified grant documents to EPA as provided in Paragraph 6 of this Delegation Agreement.

38. Authority. This Delegation Agreement is authorized by EPA under Section 205(g) of the Clean Water Act and by regulations promulgated thereunder (40 CFR §35.1000 et seq.). The Commission's authority to execute this Delegation Agreement is derived from Chapter 600, Laws of 1977 and RSA 149:4 (1978).

NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION

By _____
Executive Director

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

By _____
Regional Administrator

Approved as to form and execution:

By _____
Assistant Attorney General

Approved as to form and execution:

By _____
Regional Counsel

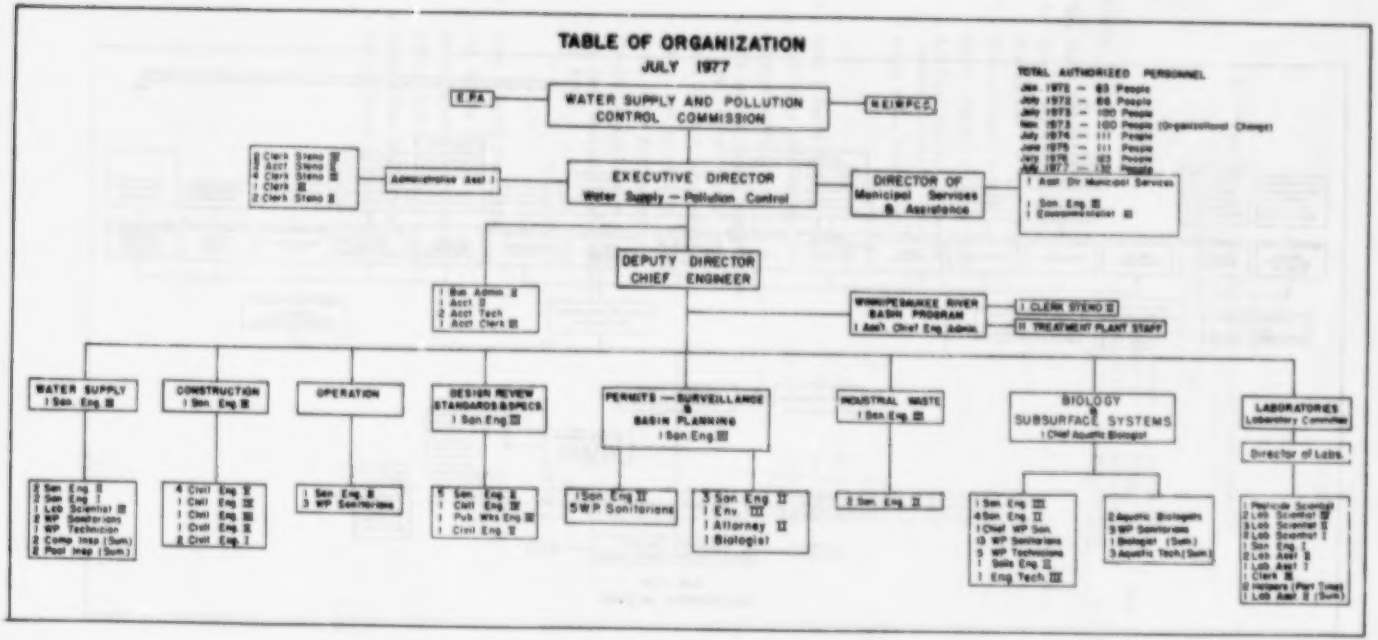
TABLE OF ORGANIZATION
JULY 1977
EPA
WATER SUPPLY AND POLLUTION CONTROL COMMISSION
NEIWPCC
TOTAL AUTHORIZED PERSONNEL
Jan. 1972 — 65 People
July 1972 — 86 People
July 1973 — 100 People
Nov. 1973 — 100 People (Organizational Change)
July 1974 — 111 People
June 1975 — 111 People
July 1976 — 123 People
July 1977 — 132 People
2 Clerk Steno III
1 Acct. Steno II
4 Clerk Steno II
1 Clerk III
2 Clerk Steno II
Administrative Asst I
EXECUTIVE DIRECTOR
Water Supply — Pollution Control
DIRECTOR OF Municipal Services & Assistance
1 Asst. Dir Municipal Services
1 San. Eng. III
1 Economist III
DEPUTY DIRECTOR CHIEF ENGINEER
1 Bus Admin II
1 Acct II
2 Acct Tech
1 Acct Clerk III
WINNIPESAUKEE RIVER BASIN PROGRAM
1 Asst. Chief Eng. Admin.
1 CLERK STENO II
11 TREATMENT PLANT STAFF
WATER SUPPLY
1 San. Eng. III
2 San Eng II
2 San Eng I
1 Lab Scientist III
2 WP Sanitarians
1 WP Technician
2 Comp Insp (Sum)
2 Pool Insp (Sum)
CONSTRUCTION
1 San Eng III
4 Civil Eng II
1 Civil Eng III
1 Civil Eng III
1 Civil Eng II
2 Civil Eng I
OPERATION
1 San Eng II
3 WP Sanitarians
DESIGN REVIEW STANDARDS & SPECS
1 San Eng III
1 San Eng II
1 Civil Eng III
1 Pub Wks Eng III
1 Civil Eng II
PERMITS — SURVEILLANCE & BASIN PLANNING
1 San Eng III
1 San Eng II
5 WP Sanitarians
3 San Eng II
1 Env. III
1 Attorney II
1 Biologist
INDUSTRIAL WASTE
1 San Eng III
2 San. Eng II
BIOLOGY & SUBSURFACE SYSTEMS
1 Chief Aquatic Biologist
1 San Eng III
4 San Eng II
1 Chief WP San.
13 WP Sanitarians
5 WP Technicians
1 Sanit Eng II
1 Eng Tech III
2 Aquatic Biologists
5 WP Sanitarians
1 Biologist (Sum)
3 Aquatic Tech (Sum)
LABORATORIES
Laboratory Committee
Director of Labs.
1 Pesticide Scientist
2 Lab Scientist III
3 Lab Scientist II
2 Lab Scientist I
1 San Eng. I
2 Lab Asst II
1 Lab Asst I
1 Clerk II
2 Helpers (Part Time)
1 Lab Asst II (Sum)



65-331 O—80—25

APPENDIX B

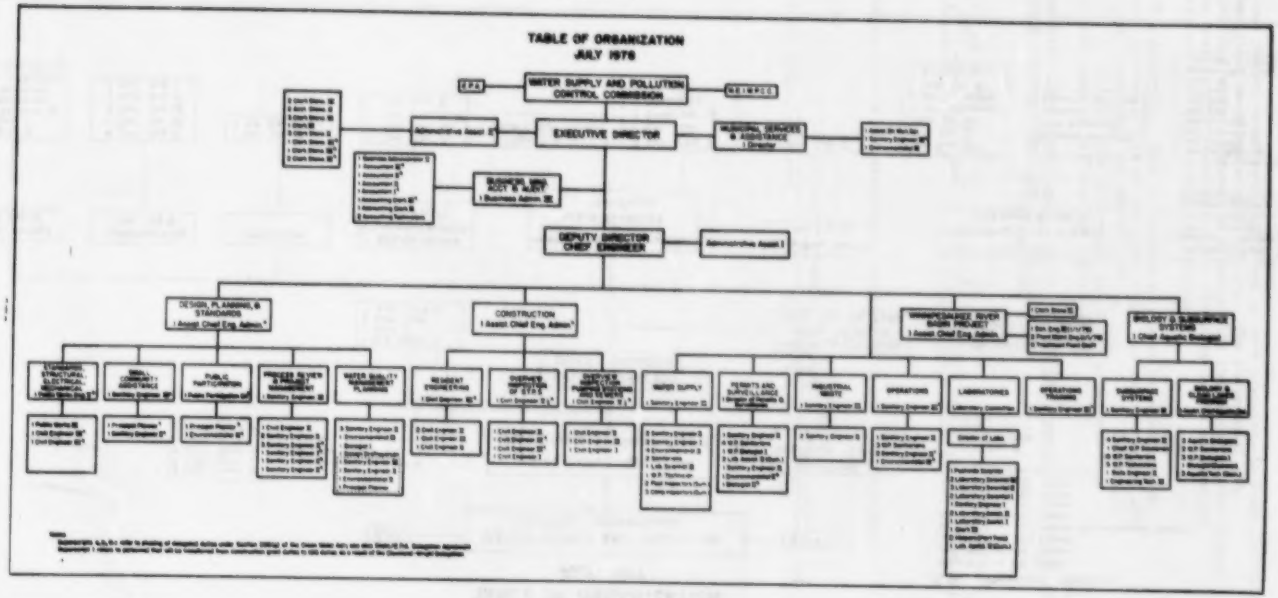
TABLE OF ORGANIZATION
JULY 1976
WATER SUPPLY AND POLLUTION CONTROL COMMISSION
EXECUTIVE DIRECTOR
DEPUTY DIRECTOR CHIEF ENGINEER
DESIGN, PLANNING, & STANDARDS
CONSTRUCTION
WATER SUPPLY
OPERATIONS
LABORATORIES

APPENDIX C

Estimated Construction Management Labor Requirements

by Management Activity

| Management Activity | Estimated Number of Projects/ Year | Estimated Number of Work-Days Per Project | Work-Years of Effort |
|---|---|---|---|
| I. New Award Processing | | | |
| A. Step 1 Award Processing | | | |
| - Pre-ap Conf. & Proj. Asst. | | 8 | |
| - Plan of Study Review | | 6 | |
| - Admin. Review of Step 1 Appl. | | 4 | |
| - A/E Cost Analysis & Review of Contracts (Incl. Minority Bus.) | | 4 | |
| - Grant Offer Processing | | 4 | |
| Subtotal #1 | 12 | 26 | 1.42 |
| B. Step 2 Award Processing | | | |
| - Facilities Plan Review (Except NEPA) | | 7 | |
| - NEPA Review (incl. preparation of Neg. Dec.) | | 5 | |
| - Grant Payment Certification | | 5 | |
| - Admin. Review of Step 2 Appl. | | 4 | |
| - Grant Offer Processing | | 4 | |
| - Pre-design Conference | | 2 | |
| - A/E Cost Analysis (incl. Minority Bus.) | | 4 | |
| Subtotal #2 | 25 | 26.5 | 3.01 |
| C. Step 3 Award Processing | | | |
| - P&S Review | | 7 | |
| - Grant Payment Certification | | .5 | |
| - Admin. Review of Step 3 Appl. | | 4 | |
| - Grant Offer Processing | | 4 | |
| - UC/ICR Planning Conference | | 2 | |
| Subtotal #3 | 30 | 17.5 | 2.38 |

APPENDIX C

(Cont'd)

Estimated Construction Management Labor Requirements

by Management Activity

| Management Activity | Estimated Number of Projects/ Year | Estimated Number of Work-Days Per Project | Work-Years of Effort |
|---|---|---|---|
| D. Step 3 Award with No Prior Steps | | | |
| - Fac. Plan Review Including Neg. Dec. preparation (for New Grants Only) | | 10 | |
| - Grant Payment Certification | | .5 | |
| - A/E Cost Analysis (for New Grants Only) | | 4 | |
| Subtotal #4 | 6 | 14.5 | .40 |
| E. Pre Construction Activities | | | |
| - Pre-Construction Conference | | 2 | |
| - Bid Review Incl. Grant Amendment | | 3 | |
| Subtotal #5 | 30 | 5 | .68 |
| II. Admin. of On-Going Projects | | | |
| A. Step 1 Active Project Management | | | |
| - General Project Management (Including Interim Review of Facilities Plans) | | 21 | |
| - Public Participation | | 21 | |
| - Grant Amendments (Inc.I/I & SSES): | | | |
| a. Eligibility Review | | 2 | |
| b. Cost/Price Analysis | | 4 | |
| - Payments (6 per year incl.) | | 9 | |
| Subtotal #6 | 24 | 57 | 6.22 |

APPENDIX C

(Cont'd)

Estimated Construction Management Labor Requirements
by Management Activity

| Management Activity | Estimated Number of Projects/ Year | Estimated Number of Work-Days Per Project | Work-Years of Effort |
|---|---|---|---|
| B. Step 2 Active Project Management | | | |
| - General Project Management (Incl. "In Process" Design Reviews) | | 21 | |
| - VE Review (Projects over $10 million ONLY) | | -- | |
| - Grants Amendments: | | | |
| a. Eligibility Review | | 2 | |
| b. Cost/Price Analysis | | 4 | |
| - Payments (6 per year incl.) | | 9 | |
| Subtotal #7 | 42 | 36 | 6.87 |
| C. Step 3 Active Project Management | | | |
| - Construction Supervision | 20 | 26 | 2.36 |
| - Overview Residency | 23 | 120 | 12.55 |
| - Change Orders & Addenda: | | | |
| a. Eligibility Review | 43 | 2 | 0.39 |
| b. Cost/Price Analysis | 43 | 4 | 0.78 |
| - Interim Payments (12 per year incl.) | 43 | 18 | 3.52 |
| - Interim audit exception review & Resolution (1 audit per life of project) | 43 | 10 | 1.95 |
| Subtotal #8 | | | 21.55 |

APPENDIX C

(Cont'd)

Estimated Construction Management Labor Requirements
by Management Activity

| Management Activity | Estimated Number of Projects/ Year | Estimated Number of Work-Days Per Project | Work-Years of Effort |
|---|---|---|---|
| D. Step 3 Activities During Year of Project Completion | | -- | |
| - User Charge Review | 19 | 5 | .43 |
| - O&M Manual and Plan of Operation Review | 43 | 5 | .98 |
| - Industry Cost Recovery System Review | 13 | 5 | .30 |
| - Sewer Use Ordinance Review | 19 | 3 | .26 |
| - Pretreatment Program Review | 13 | 4 | .24 |
| - Final Construction Inspection | 6 | 2 | .05 |
| - Final Audit Expectation Review & Resolution | 6 | 5 | .14 |
| - Closeout & Storage, Incl. Grant Amendment | 6 | 5 | .14 |
| Subtotal #9 | | | 2.54 |
| III. Support Activities Related to Project Workload | | | |
| A. Support of Management Information System | | | 1.0 |
| B. Public Participation Activities | | | 1.0 |
| C. Financial Planning, Cost Estimates Program Evaluation | | | .25 |
| D. State Management for Construction Grants | | | .25 |
| E. Needs Survey | | | .5 |
| F. EDA Project Assistance | | | .1 |
| G. Business Management Functions | | | .5 |

APPENDIX C

(Cont'd)

Estimated Construction Management Labor Requirements

by Management Activity

| Management Activity | Estimated Number of Projects/ Year | Estimated Number of Work-Days Per Project | Work-Years of Effort |
|---|---|---|---|
| H. Inquiry Response (Congressional, Public, FOI, Private) | | | .5 |
| I. Clerical Support | | | 4 |
| Subtotal #10 | | | 8.6 |
| GRAND TOTAL | 53.67 MAN-YEARS | | |

APPENDIX D

Estimated Costs FY 79 and FY 80

| Class | Salary | Fringe(1) | % of Effort Applied to CMAG | Cost Attributed to CMAG Budget | Phase(2) |
|---|---|---|---|---|---|
| Asst. Ch. Eng. | 22,000 | 3,520 | 100% | 25,520 | A |
| Asst. Ch. Eng. | 22,000 | 3,520 | 100% | 25,520 | B |
| Civil Eng. VI | 20,432 | 3,269 | 100% | 23,701 | A |
| Bus. Adm. IV | 15,809 | 2,529 | 100% | 18,338 | A |
| Pub. Par. Dir. | 16,284 | 2,605 | 100% | 18,889 | A |
| San. Eng. III | 16,759 | 2,681 | 100% | 19,440 | C |
| San. Eng. III | 16,759 | 2,681 | 100% | 19,440 | A |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | A |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | A |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | B |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | C |
| Prin. Pl. | 12,980 | 2,077 | 100% | 15,057 | C |
| Pub. Wks. Eng. V | 16,284 | 2,605 | 100% | 18,889 | B |
| Civ. Eng. IV | 14,889 | 2,382 | 100% | 17,271 | A |
| San. Eng. I | 12,980 | 2,077 | 100% | 15,057 | B |
| Clerk Steno IV | 8,088 | 1,294 | 100% | 9,382 | A |
| Prin. Pl. | 12,980 | 2,077 | 100% | 15,057 | B |
| Env. III | 12,424 | 1,988 | 100% | 14,412 | C |
| Acct. III | 11,428 | 1,828 | 100% | 13,256 | A |
| Acct. II | 10,151 | 1,624 | 100% | 11,775 | B |
| Acct I | 9,571 | 1,531 | 100% | 11,102 | C |
| Acct. Clerk III | 7,348 | 1,176 | 100% | 8,524 | A |
| Admin. Asst. II | 10,572 | 1,691 | 100% | 12,263 | A |
| Clerk Steno III | 7,348 | 1,176 | 100% | 8,524 | B |
| Clerk Steno III | 7,348 | 1,176 | 100% | 3,524 | C |
| Civil Eng. V 1/2 | 17,902 | 2,864 | 100% | 20,766 | A |
| Civil Eng. V 1/2 | 17,902 | 2,864 | 100% | 20,766 | B |
| Civ. Eng. IV | 14,889 | 2,382 | 100% | 17,271 | C |
| Civ. Eng. III | 12,980 | 2,077 | 100% | 15,057 | C |
| Clerk Steno III | 7,348 | 1,176 | 100% | 8,524 | C |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | A |
| San. Eng. II | 15,337 | 2,453 | 100% | 17,790 | A |
| San. ENg. II | 15,337 | 2,453 | 100% | 17,790 | B |
| Environm. II | 10,572 | 1,691 | 100% | 12,263 | B |
| Environm. III | 12,424 | 1,987 | 100% | 14,411 | B |
| Biologist II | 11,428 | 1,828 | 100% | 13,256 | B |
| Totals | 497,238 | 79,547 | | 576,785 | |

Notes:

1) Fringe benefits, social security 6.05%, retirement 3.26% insurance 5%, other 1.69%

2) Phase "A" 10/1/78; Phase "B" 4/1/79; Phase "C" 10/1/79

APPENDIX D

(Cont'd)

Budget

| | FY79 | FY80 |
|---|---|---|
| Salary | 338,993 | 497,238 |
| Fringe | 46,755 | 79,547 |
| Travel | 20,000 | 30,000 |
| Current Expense(1) | 46,000 | 79,200 |
| Equipment | 20,000 | 12,000 |
| Education | 10,000 | 10,000 |
| Contractural | 15,000 | 15,000 |
| Indirect Costs(2) | 24,000 | 35,500 |
| | 520,748 | 758,485 |

Notes:

1) Current expense $2,200 per person: rent $1,100-200 SF/person x $5.50/SF other $1,100 - telephone, postage, etc.

2) State government takes a flat 5% of all Federal grants for administrative costs.

APPENDIX E

Estimated Costs

for

Administration of the Construction Grants Program

FY 79 to FY 83

| | |
|---|---|
| FY 79 | 520,748 |
| FY 80 | 758,485 |
| FY 81 + 7% inflation (45,591) | 775,000 |
| FY 82 + 7% inflation (48,782) | 829,000 |
| FY 83 + 7% inflation (52,197) | 887,000 |
| Total projected cost of ultimate delegation | 3,770,233 |
| 2% of State's 5 yr. allotments (200,000,000) | 4,000,000 |
| Balance of 5 yr. 205(g) money available for 404,402 and 208 programs | 229,767 |

APPENDIX F

Transfer of Existing Positions

to

Non Cleveland-Wright Functions

| Position | Division | Yearly Salary | Fringe | % of Effort on Specified Function |
|---|---|---|---|---|
| San. Eng. III | Oper. & Maint. | 16,759 | 2,681 | 100% |
| San. Eng. III | Oper. Training | 16,759 | 2,681 | 100% |
| San. Eng. II | Oper. & Maint. | 15,337 | 2,453 | 100% |
| San. Eng. II | Oper. & Maint. | 15,337 | 2,453 | 100% |
| San. Eng. II | Municipal Permits & Monitoring | 15,337 | 2,453 | 100% |
| | | $79,529 | $12,721 | |

Total Funds

Transferred to

Non Cleveland-Wright Functions

| | |
|---|---|
| Salary | 79,592 |
| Fringe | 12,721 |
| Current Expense | 11,000 |
| Travel | 10,000 |
| Equipment | 5,000 |
| | $118,250 |

APPENDIX G

SCHEDULE OF DELEGATED TASKS
(10/6/78 Revision)

The following schedule lists those functions to be delegated pursuant to the Delegation Agreement dated October 6, 1978. A more complete description of each delegated function to be performed including identification of those approvals which the Commission is being authorized to grant, is set forth in the respective Appendices noted below. The effective dates of the delegations (whether Stage A, B or C, as set forth in Paragraph 9 of the Delegation Agreement) is also shown below. The appropriate documentation to be used in informing EPA that such functions have been performed is contained in such Appendices.

| Stage A Functions (Effective October 6, 1978) | Appendix Showing Documentation to be Used |
|---|---|
| 1. Those Supplemental Program Functions described on Appendix H.* | |
| 2. Certifying adequacy of Step 1 grant applications** | I |
| 3. Certifying adequacy of Step 2 grant applications** | J |
| 4. Certifying adequacy of Step 3 grant applications** | K |
| 5. Certifying adequacy of Step 2 + 3 grant applications** | L |
| 6. Certifying adequacy of environmental impact assessments and reports** | M |
| 7. Certifying adequacy of requests for payment on Step 1 and 2 projects** | N |
| 8. Certifying adequacy of requests for payment on Step 3 and Step 2 + 3 projects** | O |
| 9. Approval of use of force account | P |
| 10. Approval of sewer use ordinance | Q |
| 11. Approval of plans and specifications | R |
| 12. Authorizing award of construction contracts | S |
| 13. Approval of change orders, revised pages and addenda*** | T |
| 14. Approval of operations and maintenance manuals | U |
| 15. Conducting interim and final inspections | V |
| **Stage B Functions (Effective April 1, 1979)****** | |
| 1. Approval of infiltration/inflow analyses | W |
| 2. Approval of sewer system evaluation surveys and rehabilitation programs | X |
| **Stage C Functions (Effective October 1, 1979)****** | |
| 1. Approval of plans of study | Y |
| 2. Approval of the facilities plans | Z |
| 3. Approval of plans of operation | AA |
| 4. Approval of value engineering proposals, programs and studies | BB |
| 5. Approval of user charge systems | CC |
| 6. Approval of the industrial cost recovery systems | DD |
| 7. Approval of pretreatment programs | EE [Reserved] |

*Except for Item 15 on Appendix H, Receipt of Facilities Planning Progress Reports, which shall become effective at Stage C.

**Prior to the effective dates of the delegation of Stage B and C Functions, the fact that a reference to a Stage B or C Function (i.e. facilities planning) appears on a Grant Certificate shall not mean that the Commission is authorized to perform such Function, but only that (a) all documentation needed by EPA to perform such function has been transmitted or is concurrently being transmitted to EPA or (b) in the case of functions previously performed by EPA (i.e. approval of a facilities plan) to the Commission's knowledge, such function has been performed by EPA.

***Subject to subsequent approval by EPA where a change order, revised page or addendum would necessitate a grant amendment.

****Assuming conditions set forth in Paragraph 9 to the Delegation Agreement are fulfilled.

DESCRIPTION OF SUPPLEMENTAL PROGRAM FUNCTIONS
(10/6/78 Revision)

APPENDIX H

1. Priority List Management. The Commission shall continue to develop and manage the priority system, the discharge inventory system and the project priority list, all pursuant to 40 CFR §35.915(a), (b) and (c).

2. Needs Survey. The Commission shall cooperate with EPA in the implementation of the biennial needs survey pursuant to Section 516(b) of the Clean Water Act.

3. Assistance to Small Communities. The Commission may act as the manager of waste treatment construction grant programs of communities (generally having populations of less than 30,000). In this capacity, the Commission, with the approval of such a community and EPA, would serve as the community's contracting agent and undertake responsibilities such as (1) negotiating and administering planning, design and construction subagreements, (2) providing technical advice (especially on cost-effective and innovative alternatives), and (3) assisting grantees in exercising their resident engineering responsibilities (as the Commission is authorized to do by the terms of its budget appropriation during the 1975 and 1977 legislative sessions).

4. Supplemental On-Site Inspections. In addition to regular interim and final inspections, the Commission shall undertake such other on-site inspections as it decides may be necessary to assure the quality on construction work and/or the financial integrity of a project.

5. Public Participation Program. To the extent of available resources (as set forth on Appendix A to the Delegation Agreement dated October 6, 1978 (the "Delegation Agreement")), the Commission shall assist grantees in carrying out public participation programs in conformance with all applicable EPA requirements.

6. Conferences. The Commission shall conduct the following conferences on each project, to which the applicant or grantee, its consultants (if any), and EPA shall be invited:

(1) Pre-planning (prior to the preparation and filing of a Step 1 application).
(2) Pre-design (prior to the preparation and filing of a Step 2 application).
(3) Pre-construction (prior to the commencement of construction).

At such conferences, any applicable EPA guidance as to the format for such conferences shall be followed. In addition, the Commission shall conduct such additional conferences with such persons (including EPA, where appropriate) which the Commission decides may be necessary to manage its responsibilities under the Delegation Agreement.

7. Grants Information and Control System. The Commission shall furnish EPA with information relating to the progress of grant projects (in the format now being used) in connection with the national Grants Information Control System ("GICS") in such a manner and on such a schedule as shall be necessary to enable EPA to maintain a current GICS file on all New Hampshire projects.

8. Approval of Award of Construction Contracts; EEO and MBE Matters. The Commission shall require each grant recipient to withhold execution of construction contracts until the Commission has reviewed and approved the prospective contractor as meeting all state and Federal requirements. No such contract may be awarded until the Commission has received written notice from EPA that all Federal requirements relating to equal employment opportunity ("EEO") and minority business enterprise ("MBE") programs have been fulfilled. The Commission shall cooperate with EPA (or any other Federal agency which has responsibility for such matters) in the implementation of such programs. The Commission shall give early notice to EPA's Office of Civil Rights and Urban Affairs whenever it proposes to approve the selection of any contractor subject to either or both such programs. It is understood that the Federal authorities will require reports from contractors and/or grantees, conduct field investigations and hold conferences in connection with such programs and that all contracts covered by such programs are subject to certain remedies for noncompliance, inc 'ing suspension or termination of grant payments.

9. Business Management, Accounting and Auditing. In order to be able to process the greatly increased volume of business management, accounting and auditing information which will be generated as the Commission assumes its expanded responsibilities under the Delegation Agreement, the Commission will hire and train additional staff (as shown on Appendix D to the Delegation Agreement). The Commission may do whatever it decides to be necessary (whether by invitation or otherwise) to assist grantees or their consultants in carrying on proper business management, accounting or auditing functions, or in investigating any problems arising out of such functions.

10. Special Step 2 + 3 Provisions. The Commission shall be responsible for receiving and reviewing plans and specifications and other submittals required by 40 CFR §35.920-3(d) or by grant condition and for approving such submittals under 40 CFR §35.935-4 prior to the invitation for bids.

11. State-Funded Grant Program Activities. The Regional Administrator hereby determines that the segment of the Commission's construction financing program which is implemented without Federal assistance (with funds being provided by the State of New Hampshire) is administered in a manner consistent with 40 CFR, Chapter 1, including, without limitation, Part 35, Subpart E. Accordingly, expenditures made by the Commission in administering such segment will be eligible for funding under a State Management Assistance Grant.

12. Assistance in Fulfilling Functions Reserved to EPA. The Commission shall generally cooperate with EPA in fulfilling EPA's responsibilities for performing functions which are excluded from delegation under Paragraph 7 of the Delegation Agreement. At EPA's request, the Commission shall assist EPA in the performance of EPA's functions in a manner consistent with EPA's overall responsibility.

13. Program Management. The Commission shall generally provide administrative and management support to the Grant Program and shall take all such other actions as may be necessary or desirable to facilitate the expeditious cost-effective and environmentally sound conduct of the Grant Program.

14. Pretreatment Program Development and Approval. The Commission shall, to the extent of available resources, offer technical, administrative and legal assistance to grant applicants and recipients (in addition to such grant finding as may be allowable) in using construction grant funds to develop pretreatment programs under 40 CFR §35.907. The Commission shall consider entering into an arrangement whereby it shall (irrespective of whether or not the State of New Hampshire receives approval of an NPDES program under Section 402 of the Clean Water Act) take action in coordination with EPA to review and either approve or recommend approval of such developed pretreatment systems under 40 CFR Part 403 and enforce such pretreatment systems. Funding for the Commission's activities under Part 403 shall be determined at a subsequent date.

15. Receipt of Facilities Planning Progress Reports. The Commission shall be responsible for receiving and reviewing progress reports submitted under 40 CFR §35.917-3 (c), as part of its general oversight of the facilities planning process.

STEP 1 GRANT CERTIFICATE
(10/6/78 Revision)

APPENDIX I

Applicant Name _____ Project Name _____
EPA Project Number _____ Date of Application _____
Date Received _____

Part A. CERTIFICATIONS. The Executive Director of the New Hampshire Water Supply and Pollution Control Commission and the registered professional engineer who is responsible for review of the above grant application hereby certify as follows:

1. The appropriate governing body of the Applicant has duly authorized the execution of the grant application, the execution of the grant agreement and the funding and carrying out of the proposed project (appropriate authorization documents are included herewith);

2. All documents which EPA needs in order to make the requested grant (including a properly completed EPA Form 5700-32) are transmitted herewith;

3. The proposed project is consistent with all applicable plans prepared under Sections 208 and 303(e) of the Clean Water Act (33 U.S.C. 1251 et seq.);

4. The above grant application (together with its accompanying documentation) meets all applicable EPA requirements for the award of a Step 1 grant, including, without limitation, each of the following requirements of Title 40 of the Code of Federal Regulations:

a. Priority (§§35.915; 35.925-3);
b. A-95 Review (§35.920-3(a)(3));
c. Applicant Eligibility and Capability (§§35.917-3(b); 35.920-1; 35.925-5(b));
d. Project Eligibility (§§35.903(b); 35.917(e); 35.930-1(a)(1);
e. Subagreements (§§35.920-3(a)(2); 35.936 to 35.937-12);
f. Plan of Study (§§35.917-2; 35.917-4; 35.920-3(a)(1));
g. State Allocation of Funds (§35.925-4);

5. The only exceptions to this certification are the following:

_____
_____
_____
_____

Part B. SPECIAL GRANT CONDITIONS. The undersigned recommend that the requested grant be made, subject to the following identified special grant conditions, copies of the text being attached hereto:

_____
_____
_____
_____

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ By _____
Date Executive Director

_____ _____
Date Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

63-935 O—80——27

STEP 2 GRANT CERTIFICATE
(10/6/78 Revision)

APPENDIX J

Applicant Name _____ Project Name _____
EPA Project Number _____ Date of Application _____
Date Received _____

Part A. CERTIFICATIONS. The Executive Director of the New Hampshire Water Supply and Pollution Control Commission and the registered professional engineer who is responsible for review of the above grant application hereby certify as follows:

1. The appropriate governing body of the Applicant has duly authorized the execution of the grant application, the execution of the grant agreement and the funding and carrying out of the proposed project (appropriate authorization documents are included herewith);

2. All documents which EPA needs in order to make the requested grant (including a properly completed EPA Form 5700-32) are transmitted herewith;

3. The proposed project is consistent with all applicable plans prepared under Sections 208 and 303(e) of the Clean Water Act (33 U.S.C. 1251 et seq.);

4. EPA has issued either a negative declaration or a final environmental impact statement under the National Environmental Policy Act (42 U.S.C. 4321 et seq.) and 40 CFR Part 6 and the appropriate waiting periods have either elapsed as of this date or are expected to have elapsed before the date of grant award, and no appeal to the Council on Environmental Quality has been taken

5. Either EPA (before the effective date of the delegation of facilities planning approval under the Delegation Agreement dated 10/2/78) or the Commission (after such effective date) has approved the facilities plan for such project on (date) _____; in either case such approval followed the expiration of the waiting periods described in paragraph 4 above; there have been no material changes in such facilities plan, including the scope of the project or cost projections since the date of approval.

6. The above grant application (together with its accompanying documentation) meets all applicable EPA requirements for the award of a Step 2 grant, including, without limitation, each of the following requirements of Title 40 of the Code of Federal Regulations:

a. Priority (§§35.915; 35.925-3);
b. Applicant Eligibility and Capability (§§35.920-1; 35.925-5(b));
c. Project Eligibility (§§35.903(b); 35.930-1(a)(2));
d. Site Availability (§35.920-3(b)(2));
e. Subagreements (§§35.920-3(b)(3); 35.936 to 35.937-12);
f. Clearinghouse Comments (§35.920-3(b)(4));
g. Value Engineering (§§35.920-3(b)(5);:35.926(a));
h. Intermunicipal Agreements (§35.920-3(b)(6));
i. Project Completion Schedule (§§35.920-3(b)(7); 35.935-9);
j. User Charges (§§35.920-3(b)(8)(i); 35.925-11; 35.929 et seq.; 35.935-13);
k. Industrial Cost Recovery (§§35.920-3(b)(8)(ii); 35.925-11; 35.928 et seq.; 35.935-15);
l. Costs Related to Federal Facilities (§§35.920-3(b)(8)(iii); 35.925-16);
m. Sewer Use Ordinance (§§35.920-3(b)(8)(iv); 35.927-4);
n. Uniform Relocation Assistance and Real Property Acquisition Policies

Act of 1970 (§30.405-2; 40 CFR Part 4; §35.920-3(b)(8)( v));

o. Other Federal Statutory Requirements (40 CFR Part 30, Subpart C; §35.920-3(b)(8)(vi));
p. Pretreatment (§§35.907(b); 35.907(d)(1); (d)(2); (d)(4); 35.920-3(b)(9));
q. State Allocation of Funds (§35.925-4);
r. Discharge Permits (§35.925- 6);
s. Design Criteria (§35.925-7);
t. Civil Rights Act of 1964 (Title VI) (§35.925-9);
u. Sanitary Sewerage Systems (§35.925-13);
v. Compliance with Environmental Laws (§§35.925-14; 30.101; 40 CFR Part 30, Subpart C; the Clean Air Act);
w. Treatment of Industrial Wastes (§35.925-15);
x. Retained Amounts from Industrial Cost Recovery (§35.925-17);
y. Pre-award Project Costs (§35.925-18);
z. Pre-award Procurement Actions (§35.925-20);
aa. Storm Sewers (§35.925-21);
bb. Property Requirements (§35.925-22);
cc. Sewer System Evaluation and Rehabilitation (§§35.927 to 35.927-5);
dd. Segmented Construction (§35.930-4);
ee. Amount of Federal Share (§§35.930-5(a), (b) and (c));
ff. National Historic Preservation Act (§30.405-7); and
gg. Public Participation (§35.917-5)

7. The only exceptions to this certification are the following:

_____
_____
_____
_____

Part B. SPECIAL GRANT CONDITIONS. The undersigned recommend that the requested grant be made, subject to the following identified special grant conditions, copies of the text being attached hereto:

_____
_____
_____
_____

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ By _____
Date Executive Director

_____ _____
Date Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

STEP 3 GRANT CERTIFICATE
(10/6/78 Revision)

APPENDIX K

Applicant Name _____ Project Name _____
EPA Project Number _____ Date of Application _____
Date Received _____

Part A. CERTIFICATIONS. The Executive Director of the New Hampshire Water Supply and Pollution Control Commission and the registered professional engineer who is responsible for review of the above grant application hereby certify as follows:

1. The appropriate governing body of the Applicant has duly authorized the execution of the grant application, the execution of the grant agreement and the funding and carrying out of the proposed project (appropriate authorization documents are included herewith);

2. All documents which EPA needs in order to make the requested grant (including a properly completed EPA Form 5700-32) are transmitted herewith;

3. The proposed project is consistent with all applicable plans prepared under Sections 208 and 303(e) of the Clean Water Act (33 U.S.C. 1251 et seq.);

4. EPA has issued either a negative declaration or a final environmental impact statement under the National Environmental Policy Act (42 U.S.C. 4321 et seq.) and 40 CFR Part 6 and the appropriate waiting periods have either elapsed as of this date or are expected to have elapsed before the date of grant award.

5. The above grant application (together with its accompanying documentation) meets all applicable EPA requirements for the award of a Step 3 grant, including, without limitation, each of the following requirements of Title 40 of the Code of Federal Regulations:

a. Priority (§§35.915; 35.925-3);
b. Applicant Eligibility and Capability (§§35.920-1; 35.925-5(b));
c. Project Eligibility (§§35.903(b); 35.930-1(a)(3));
d. Site Availability (§35.920-3(b)(2) and (c)(1));
e. Subagreements (§§35.920-3(b)(3) and (c)(1); 35.936 to 35.937-12; 35.928 to 35.938-9;
f. Clearinghouse Comments (§35.920-3(b)(4) and (c)(1);
g. Value Engineering (§§35.920-3(b)(5) and (c)(1); 35.926;
h. Intermunicipal Agreements (§35.920-3(b)(6) and (c)(1);
i. Project Completion Schedule (§§35.920-3(b)(7) and (c)(1); 35.935-9);
j. User Charges (§§35.920-3(b)(8)(i) and (c)(1); 35.925-11; 35.929 et seq.; 35.935-13);
k. Industrial Cost Recovery (§§35.920-3(b)(8)(ii) and (c)(1); 35.925-11; 35.928 et seq.; 35.935-15);
l. Costs Related to Federal Facilities (§§35.920-3(b)(8)(iii) and (c)(1); 35.925-16);
m. Sewer Use Ordinance (§§35.920-3(b)(8)(iv) and (c)(1); 35.927-4);
n. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (§30.405-2; 40 CFR Part 4; §35.920-3(b)(8)(v) and (c)(1));
o. Other Federal Statutory Requirements (40 CFR Part 30, Subpart C; §35.920-3(b)(8)(vi) and (c)(1));
p. Pretreatment (§35.907(b); 35.907(d)(1) through (d)(9); 35.920-3(c)(4));
q. State Allocation of Funds (§35.925-4);
r. Discharge Permits (§35.925(6));
s. Design Criteria (§35.925-7);
t. Civil Rights Act of 1964 (Title VI) (§35.925-9);

u. Sanitary Sewerage Systems (§35.925-13);
v. Compliance with Environmental Laws (§§35.925-14; 30.101; 40 CFR Part 30, Subpart C; the Clean Air Act);
w. Treatment of Industrial Wastes (§35.925-15);
x. Retained Amounts from Industrial Cost Recovery (§35.925-17);
y. Pre-award Project Costs (§35.925-18);
z. Pre-award Procurement Actions (§35.925-20);
aa. Storm Sewers (§35.925-21);
bb. Property Requirements (§35.925-22);
cc. Sewer System Evaluation and Rehabilitation (§§35.927 to 35.927-3);
dd. Segmented Construction (§35.930-4);
ee. Amount of Federal Share (§§35.930-5(a), (b) and (c));
ff. National Historic Preservation Act (§30.405-7)
gg. Facilities Planning (§§35.917 to 35.917-9);
hh. Approved Construction Drawings and Specifications (§35.920-3(c)(2));
ii. Operation and Maintenance Program, Including Plan of Operation (§§35.920-3(c)(3); 35.925-10; 35.935-12);

6. The only exceptions to this certification are the following:

_____
_____
_____
_____

Part B. SPECIAL GRANT CONDITIONS. The undersigned recommend that the requested grant be made, subject to the following identified special grant conditions, copies of the text being attached hereto:

_____
_____
_____
_____

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ By _____
Date Executive Director

_____ _____
Date Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

STEP 2 + 3 GRANT CERTIFICATE
(10/6/78 Revision)

APPENDIX L

Applicant Name_____ Project Name_____
EPA Project Number_____ Date of Application_____
Date Received_____

Part A. CERTIFICATIONS. The Executive Director of the New Hampshire Water Supply and Pollution Control Commission and the registered professional engineer who is responsible for review of the above grant application hereby certify as follows:

1. The appropriate governing body of the Applicant has duly authorized the execution of the grant application, the execution of the grant agreement and the funding and carrying out of the proposed project (appropriate authorization documents are included herewith);

2. All documents which EPA needs in order to make the requested grant (including a properly completed EPA Form 5700-32) are transmitted herewith:

3. The proposed project is consistent with all applicable plans prepared under Sections 208 and 303(e) of the Clean Water Act (33 U.S.C. 1251 et seq.);

4. EPA has issued either a negative declaration or a final environmental impact statement under the National Environmental Policy Act (42 U.S.C. 4321 et seq.) and 40 CFR Part 6 and the appropriate waiting periods have either elapsed as of this date or are expected to have elapsed before the date of grant award.

5. Either EPA (before the effective date of the delegation of facilities planning approval under the Delegation Agreement dated 10/2/78) or the Commission (after such effective date) has approved the facilities plan for such project on (date) _____; in either case such approval followed the expiration of the waiting periods described in paragraph 4 above; there have been no material changes in such facilities plan, including the scope of the project or cost projections since the date of approval.

6. The applicant has submitted an approved schedule for submitting (a) construction drawings and specifications, (b) operation and maintenance manual, (c) user charge and cost recovery systems, (d) sewer use ordinance and (e) a preliminary plan of operation, all as required by 40 CFR §§35.920-3(d) and 35.935-4.

7. The above grant application (together with its accompanying documentation) meets all applicable EPA requirements for the award of a Step 2 + 3 grant, including, without limitation, each of the following requirements of Title 40 of the Code of Federal Regulations:

a. Priority (§§35.915; 35.925-3);
b. Applicant Eligibility and Capability (§§35.920-1; 35.925-5(b));

c. Project Eligibility (§§35.903(b); 35.909; 35.930-1(a)(4));
d. Site Availability (§35.920-3(b)(2) and (d));
e. Subagreements (§§35.920-3(b) and (d); 35.936 to 35.937-12);
f. Clearinghouse Comments (§35.920-3(b)(4) and (d));
g. Intermunicipal Agreements (§35.920-3(b)(6) and (d));
h. Project Completion Schedule (§§35.920-3(b)(7) and (d); 35.935-9);
i. User Charges (§§35.920-3(b)(8)(i) and (d); 35.925-11; 35.929 et seq; 35.935-13);
j. Industrial Cost Recovery (§§35.920-3(b)(8)(ii) and (d); 35.925-11; 35.928 et seq.; 35.935-15);
k. Costs Related to Federal Facilities (§§35.920-3(b)(8)(iii) and (d); 35.925-16);
l. Sewer Use Ordinance (§§35.920-3(b)(8)(iv) and (d); 35.927-4);
m. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (§30.405-2; 40 CFR Part 4; §35.920-3(b)(8)(v) and (d));
n. Other Federal Statutory Requirements (40 CFR Part 30, Subpart C; §35.920-3(b)(8)(vi) and (d));
o. Pretreatment (§§35.907(b); 35.907(d)(1); (d)(2); (d)(4); 35.920-3(b)(9) and (d));
p. State Allocation of Funds (§35.925-4);
q. Discharge Permits (§35.925-6);
r. Design Criteria (§35.925-7);
s. Civil Rights Act of 1964 (Title IV) (§35.925-9);
t. Sanitary Sewerage Systems (§35.925-13);
u. Compliance with Environmental Laws (§§35.925-14; 30.101; 40 CFR Part 30, Subpart C; the Clean Air Act);
v. Treatment of Industrial Wastes (§35.925-15);
w. Retained Amounts from Industrial Cost Recovery (§35.925-17);
x. Pre-award Project Costs (§35.925-18);
y. Pre-award Procurement Actions (§35.925-20);
z. Storm Sewers (§35.925-21);
aa. Property Requirements (§35.925-22);
bb. Sewer System Evaluation and Rehabilitation (§§35.927 to 35.927-5);
cc. Amount of Federal Share (§§35.930-5(a), (b) and (c));
dd. National Historic Preservation Act (§30.405-7); and
ee. Public Participation (§35.917-5).

8. The only exceptions to this certification are the following:

_____
_____
_____
_____

Part B. SPECIAL GRANT CONDITIONS. The undersigned recommend that the requested grant be made, subject to the following identified special grant conditions, copies of the text being attached hereto:

_____
_____
_____
_____

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ By_____
Date Executive Director

_____ _____
Date Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

ENVIRONMENTAL ASSESSMENT CERTIFICATE
(10/6/78 Revision)

APPENDIX M

Applicant Name _____ Project Name _____
EPA Project Number _____ Date of Assessment _____
Date Received _____

The Executive Director of the New Hampshire Water Supply and Pollution Control Commission and the registered professional engineer who is responsible for review of the above environmental assessment hereby certify as follows:

1. That in the Commission's judgment the accompanying environmental impact assessment for the above-named project meets all applicable EPA requirements, including the requirement that such assessment address matters covered by each of the applicable statutes cited in 40 CFR §6.214; and

2. That accompanying this certification is the Commission's environmental impact report prepared pursuant to Paragraph 26 of the Delegation Agreement dated October , 1978.

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ By _____
Date

_____ _____
Date Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

Revision 10/6/78

APPENDIX N

STEP 1 AND STEP 2 PAYMENT REVIEW CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of a (Step 1)(Step 2) grant payment (as noted below in the Schedule of Type of Payment Request).

| | Initial/Not Applicable |
|---|---|
| 1. Schedule of Type of Payment Request: | |
| a) First payment (Complete Checklist Sections 1, 2, 4 and 5). | (1a)_____ |
| b) First payment greater than 50 percent completion (Complete Checklist Sections 1, 2, 4 and 5). | (1b)_____ |
| c) First payment greater than 90 percent completion (Complete Checklist Sections 1, 2, 4 and 5). | (1c)_____ |
| d) Final payment (Complete Checklist Sections 1-5). Note: Final payments are to be certified by NH WS & PCC for EPA review and final approval. | (1d)_____ |
| e) All other payments (Interim payment-Complete Checklist Section 5). | (1e)_____ |

APPENDIX N

2. Exceptions:

_____

_____

_____

_____ (2)_____

3. Interim Payments: The Engineer has reviewed the Outlay Report and Request for Reimbursement for Construction Programs (S.F. 271) submitted with the Interim Payment Request. In addition, based upon his general knowledge of the project, the Engineer certifies that the Grantee is in compliance with all applicable requirements (Section 5 of Checklist required) (3)_____

4. Review Checklist for Comprehensive Payments: The following checklist has been completed by the Engineer and indicates compliance with all applicable requirements. (4)_____

CHECKLIST FOR REVIEWING PARTIAL/FINAL GRANT PAYMENT REQUESTS
FOR STEP 1/2 PROJECTS UNDER TITLE II, PL 92-500
AND PL 95-217

PROJECT NO. _____ GRANTEE _____ STEP _____ PAYMENT NO. _____ % COMPLETE _____

| SECTION I. GENERAL REVIEW FOR 1st, 50 & 90 PERCENTILE & FINAL PAYMENTS: | YES | NO |
|---|---|---|
| 1. Has the Grantee prepared and submitted an Outlay Report and Request for Reimbursement for Construction Programs, Standard Form 271? | ___ | ___ |
| a. Has Certification (#12a) been signed by the Grantee's designated Authorized Representative? | ___ | ___ |
| b. Has Certification (#12b) been signed by a responsible representative of the Consulting Engineering firm? | ___ | ___ |
| 2. Is the Grantee in conformance with all special grant conditions? (Identify the special conditions below). | ___ | ___ |

| CONDITION # | BRIEF DESCRIPTION | STATUS |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| | | |
|---|---|---|
| 3. Has the Compliance Report been approved? | ___ | ___ |
| 4. Have we requested additional supportive cost documentation in any of our previous correspondence (payment approval letters, etc.)? | ___ | ___ |
| a. What are the dates of those letters? _____ _____ _____ | | |
| b. Has the Grantee responded, and was the additional data sufficient to warrant acceptance of costs previously disallowed, or allowed on a contingent basis? | ___ | ___ |
| c. If satisfactory, the previously questioned costs may be allowed in this payment computation; however, if not, all costs previously disallowed or allowed on a contingent basis are to be considered ineligible. | ___ | |
| 5. Has the Grantee returned the signed original of the Grant Agreement and all Grant Amendment forms? | ___ | ___ |

| | YES | NO |
|---|---|---|
| 6. Do we have a signed copy of an approvable engineering contract including any amendments for each element of engineering work? | ____ | ____ |
| **SECTION II.** COST REVIEW FOR 1st, 50 & 90 PERCENTILE & FINAL PAYMENTS: | | |
| 1. ENGINEERING COSTS: | | |
| a. Has a tabulation of all eligible engineering fees been submitted? | ____ | ____ |
| b. Have invoices clearly defining the service rendered and substantiating the tabulation been submitted? | ____ | ____ |
| c. Consider the following in our review of engineering costs: | | |
| 1. Were the charges computed in accordance with the appropriate engineering contract? | ____ | ____ |
| 2. Have costs previously questioned and discussed in Section I, Item 4, been properly accounted for? | ____ | ____ |
| 3. Do any of the charges exceed the upset fee limits for services, as specified in the engineering contracts? | ____ | ____ |
| 4. Had EPA or the NHWS & PCC previously established maximum limits to our participation in fees for specific areas? | ____ | ____ |
| SERVICE ____ LIMIT ____ | | |
| ____ ____ | | |
| ____ ____ | | |
| ____ ____ | | |
| 5. Was any service financed with an advance from the U. S. Department of HUD? If yes, identify the amount advanced, service, the amount, and date of repayment. | ____ | ____ |
| $____ Adv. Rec'd ____ Service $____ Repaid ____ Date Repaid | | |
| 6. Were all engineering expenses incurred prior to the grant award date claimed in the Grant Application? Identify those not claimed in the application and comment in payment letter that the expenses are ineligible. | ____ | ____ |
| ____ Inv. Date ____ Service $____ Cost | | |

| | YES | NO |
|---|---|---|
| 7. Were any charges paid by an existing authority other than the Grantee? If so, identify the costs and the authority and comment in the payment letter that the costs are ineligible. | ___ | ___ |
| Inv. Date _____ Service _____ $ Cost _____ Authority _____ | | |
| 8. Check the arithmetic on the invoices. | ___ | |
| 9. Complete the attached "Schedule #1." | ___ | |
| 2. LEGAL AND ADMINISTRATIVE COSTS: | | |
| a. Did the Grantee submit a separate tabulation of legal and administrative costs? | ___ | ___ |
| b. Have invoices clearly defining the service rendered and substantiating the tabulation been submitted? | ___ | ___ |
| 1. Check the arithmetic on the invoices. | ___ | |
| 2. Evaluate the eligibility from available guidelines. | ___ | |
| c. Complete the attached "Schedule #2." | ___ | |
| SECTION III. REVIEW OF FINAL PAYMENT ONLY: | | |
| 1. The following certifications are required: | | |
| a. Was the certification of project completion and acceptance submitted and is it signed by both the Grantee's Authorized Representative and a representative from the consulting engineering firm? | ___ | ___ |
| b. Did the Grantee's Authorized Representative submit his certification assigning to the United States its rights to refunds, rebates, and credits? | ___ | ___ |
| c. Did the Grantee's Authorized Representative submit his certification releasing the United States from all liabilities or claims arising out of the project? | ___ | ___ |
| 2. Has the project work been approved by the NHWS & PCC. | ___ | ___ |
| a. Identify the date(s) of the NHWS & PCC's letter (s) approving project work. | | |

| DATE | TASKS (Identify all items of project work requiring separate approval; i.e: Facilities Plan, I/I Analysis, SSES,etc.) | YES | NO |
|---|---|---|---|
| _____ | _____ | | |
| _____ | _____ | | |
| _____ | _____ | | |

3. Has the project cut-off date been established? ___ ___

   a. No costs related to the project may be incurred on this grant subsequent to the cut-off date. Cut-off date is generally interpreted as the date when the NHWS & PCC gave final approval to all project work.

   b. Project cut-off date: _____

SECTION IV. COMPLETING THE EPA FORM SF-271:

1. Designate a column for "OFFICIAL USE ONLY" and fill in the approved costs from Schedules #1 & #2 on all applicable lines. _____

   Compute line "q," Federal Share to date: _____

   a. Round down to nearest hundred dollars (except for Finals). _____

   b. In no case is the cumulative EPA payment to exceed 90 percent of the Federal grant until the project work has been completed and approved and all grant conditions are met. _____

3. Complete line "t," Federal Payments Previously Requested, with the value of cumulative payments previously approved. _____

4. Complete line "u," Amount Requested for Reimbursement, with the amount approved for this payment. _____

5. Report the % of EPA grant paid, as computed by the following formula, on line "v," Percent of Project Completed. _____

$$\% \text{ Complete} = \frac{\text{Total Federal Share (Line "s")}}{\text{Cumulative EPA Grant}}$$

6. Identify the amount to be paid at the top of the form. _____

7. Complete the authorization for payment at the bottom of the form as follows:

Approved for Payment: _____

Lindsay Collins,P.E Director
Municipal Services
New Hampshire Water Supply &
Pollution Control Commission

| YES | NO |
|---|---|
| | |

8. Mail the completed SF-271, Payment Review Form, and substantiating documentation (as appropriate) to:

Environmental Protection Agency, Region I
Municipal Facilities Branch
Facilities Grants Section
John F. Kennedy Federal Building
Room 2300
Boston, MA 02203

SECTION V. REVIEW CERTIFICATION

The Grantee is in substantial compliance with payment requirements and payment is recommended as reported in the column for "OFFICIAL USE ONLY" on the attached copy of EPA SF-271.

Date

Registered Professional Engineer



63-935 O—80——28

TECHNICAL COSTS
(Category "B")

Check conformity with Engineering Contract
Check Eligibility

| Eligible Cost | Payee | Services Rendered | Eligible Ratio (if applicable) | Total Cost |
|---|---|---|---|---|
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TOTAL

Schedule No. 1

## LEGAL COSTS

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
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| | | = Total<br>X Eligibility Ratio ( ) = | | | |
| | | | | Eligible Total | |

## ADMINISTRATIVE COSTS

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
|---|---|---|---|---|---|
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| | | = Total<br>X Eligibility Ratio ( ) = | | | |
| | | | | Eligible Total | |

Grand Total Legal & Admin. Costs _____
(Category "a")

Schedule No. 2

COMMENTS

Revision 10/6/78

APPENDIX O

STEP 3 AND STEP 2 + 3 PAYMENT REVIEW

CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of a (Step 3)(Step 2 + 3) grant payment (as noted below in the Schedule of Type of Payment Request).

Initial/Not Applicable

1. Schedule of Type of Payment Request:

a) First payment (Complete Checklist Sections 1, 2, 4 and 5). (1a)_____

b) First payment greater than 50 percent completion (Complete Checklist Sections 1, 2, 4 and 5). (1b)_____

c) First payment greater than 80 percent completion (Complete Checklist Sections 1, 4 and 5). (1c)_____

d) First payment greater than 90 percent completion (Complete Checklist Sections 1, 2, 4 and 5). (1d)_____

APPENDIX O

e) Final payment (Complete Checklist Sections 1-5).
Note: Final payments are to be certified by NH WS & PCC for EPA review and final approval. (1e)_____

f) All other payments (Interim payments - Complete Checklist Section 5) ( 1f)_____

2. Exceptions:

_____

_____

_____

_____ (2)_____

3) Interim Payments: The Engineer has reviewed the Outlay Report and Request for Reimbursement for Construction Programs (S.F. 271) submitted with the interim payment request. In addition, based upon his general knowledge of the project, the Engineer certifies that the Grantee is in compliance with all applicable requirements (Section 5 of Checklist). (3)_____

4. Review Checklist for Comprehensive Payments: The following checklist has been completed by the Engineer and indicates compliance with all applicable requirements. (4)_____

CHECKLIST FOR REVIEWING INTERIM/COMPREHENSIVE GRANT PAYMENT REQUESTS
FOR STEP 3 AND STEP 2 + 3 PROJECTS UNDER TITLE II, PL 92-500 AND PL 95-217

PROJECT NO. _____ GRANTEE _____ PAYMENT NO. _____ % COMPLETE _____

| | YES | NO |
|---|---|---|
| **SECTION I.** GENERAL REVIEW FOR 1st, 50, 80 & 90 PERCENTILE & FINAL PAYMENTS | | |
| 1. Has the Grantee prepared and submitted an Outlay Report and Request for Reimbursement for Construction Programs, SF-271? | ___ | ___ |
| a. Has Certification (#12a) been signed by the Grantee's designated Authorized Representative? | ___ | ___ |
| b. Has Certification (#12b) been signed by a responsible representative of the consulting engineering firm? | ___ | ___ |
| 2. Must partial payment be limited or refused because of one or more of the following regulatory requirements? | ___ | ___ |

| REQUIREMENTS | STATUS |
|---|---|
| A. User Charges: Effective 3-1-73 (50/80% limitations effective 2-10-74) | _____ |
| B. Industrial Cost Recovery: Effective 7-1-70 (50/80% limitations effective 2-10-74) | _____ |
| C. Sewer User Ordinance: Effective 2-28-73 (80% limitations effective 2-10-74) | _____ |
| D. O&M Manual: Effective 7-1-70 (50/90% limitations effective 2-10-74) | _____ |
| E. Plan of Operation: Effective 12-17-77 (50% limitation) | _____ |
| F. Pretreatment Management Program: Effective 10-1-78 (90% limitations) | _____ |

| | YES | NO |
|---|---|---|
| 3. Is the Grantee presently in conformance with all other special grant conditions? (Identify the special conditions below). | ___ | ___ |

| CONDITION # | BRIEF DESCRIPTION | STATUS |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| | YES | NO |
|---|---|---|
| 4. Has the Grantee submitted a final legal opinion regarding acquisitions of all sites, easements and rights-of-way necessary during construction and to assure proper operation and maintenance of the facilities during the useful life of the project? (No payments in excess of 50% of the current grant amount, except where condemnation proceedings are in progress.) | ___ | ___ |
| 5. Have we been directed to withhold grant funds because of a DOL (or other) investigation into alleged violations of the Davis-Bacon and related acts? | ___ | ___ |
| a. If so, how much? $_____ | | |
| b. Which contractor(s) is/are involved? _____ | | |
| c. When and if resolved, what is date of our letter to that effect? _____ | | |
| 6. Have we requested additional supportive cost documentation in any of our previous correspondence? (Contract approval letters, payment approval letters, etc.) | ___ | ___ |
| a. What are the dates of those letters? _____ | | |
| b. Has the Grantee responded and was the additional data sufficient to warrant acceptance of costs previously disallowed, or allowed on a contingent basis? | ___ | ___ |
| c. If satisfactory, the previously questioned costs may be allowed in this payment computation; however, if not, continue to disallow previously excluded costs and exclude contingently approved costs at this time. | | |
| 7. Has the Grantee's Compliance Report been approved? | ___ | ___ |
| 8. Has there been an official field inspection recently? | ___ | ___ |
| a. Latest inspection was performed by: _____ (Name - Agency) on _____. (Date) | | |
| b. Were any discrepancies noted that had to be corrected prior to further payment? (Identify the discrepancies and the status of each below.) | | |

| DISCREPANCY | STATUS |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

| | YES | NO |
|---|---|---|
| 9. Is the current grant offer based on the latest eligible project cost estimate? | ___ | ___ |
| 10. Has the Grantee returned the signed original of the Grant Agreement and all Grant Amendment forms? | ___ | ___ |
| 11. Does the requirement of flood insurance under the National Flood Insurance Program apply to this project? (Effective 3-1-74) | ___ | ___ |
| a. If no, why not? _____ | ___ | ___ |
| b. If so, do we have a copy of the certificate of insurance coverage or other assurance that the required insurance has been obtained? (Payment cannot be approved unless this requirement is met). | ___ | ___ |
| 12. Has the Grantee submitted a signed "Certification of Authorized Representative as to Contractors' Compliance with Labor Standards and Insurance Requirements?" (N/A to payments exempt from cost review) | ___ | ___ |
| **SECTION II.** COST REVIEW FOR 1st, 50 & 90 PERCENTILE & FINAL PAYMENTS: | | |
| 1. CONSTRUCTION COSTS: | | |
| a. Do we have a valid signed copy of each construction contract for which approval to award was issued? | ___ | ___ |
| b. Has the Grantee submitted an approvable copy of the latest estimate of work-in-place for each eligible contract? (For final payments we need the final estimate for each contract). | ___ | ___ |
| (1) Each estimate of work-in-place must be signed by a representative from the consulting engineering firm and the contractor. | ___ | |
| (2) Verify that the unit prices for all contract items are identical to the unit prices on the bid proposals. | ___ | |
| (3) Verify that the estimates of work-in-place have been extended and totaled correctly. | ___ | |
| c. Have allowable costs been separated from the total costs to date for each estimate of work-in-place? | ___ | ___ |
| (1) A breakdown of eligible and noneligible costs to date should have accompanied each estimate of work-in-place for partially eligible contracts. Verify that the separation is correct and that it has been extended and totaled correctly. | ___ | |

| | YES | NO |
|---|---|---|
| (2) Check for cost overruns. Overruns in excess of $1,000 should be disallowed pending receipt of written justification. Lesser overruns can be allowed, contingent upon receipt of written justification if verbal justification is secured. Insignificant overruns should only be identified for purposes of observing changes on future comprehensive payment reviews. | | |
| (3) Change orders (extra work orders, supplemental agreements, etc.) not approved by this office must be disallowed pending such approval. Credit amounts are to be taken automatically, but the change order must still be processed. | | |
| (4) The costs of items with unit values stipulated in the specifications may be allowed without a written explanation if the amount is less than $1,000 (an explanation must subsequently be requested); however, stipulated items in excess of $1,000 must be disallowed pending receipt of proper justification. | | |
| (5) The value of materials stored on site is an allowable cost of construction-in-place for partial grant payments. The costs of materials must be itemized on an attachment to the estimate of work-in-place and the value of ineligible materials must be separated. | | |
| (6) The value of specifically manufactured equipment is an allowable cost of construction-in-place for partial grant payments if provisions therefore were included in the bid and contract documents. Such costs must be substantiated by appropriate certification from the manufacturer or fabricator as to costs incurred. | | |
| (7) The applicable value of the amount retained must be deleted from the value of work-in-place claimed for reimbursement. | | |
| d. For final payment requests, has the Grantee submitted a copy of the final estimate of work-in-place for all ineligible construction contracts which will be required to prorate engineering, legal, and administrative costs? | | |
| e. For final payments, has a tabulation of change orders and extra work orders been submitted for each eligible contract, and have they been approved by the NHWS & PCC? | | |
| f. Is construction being completed within the original construction period plus approved extensions? | | |
| (1) Complete the following chart: | | |

| Contract No. | Contract Date | Original Duration | Approved Extension | Expected Complete |
|---|---|---|---|---|
| | | | | |
| | | | | |

| | YES | NO |
|---|---|---|
| (2) Engineering (or other) costs incurred as a direct result of extended construction periods not approved by the NHWS & PCC are ineligible (i.e., resident engineering and general services, when other than a lump sum billing). Adjust costs as necessary. | | |
| g. Complete the attached "Schedule #1." | | |
| 2. EQUIPMENT AND MISCELLANEOUS CONSTRUCTION COSTS: | | |
| a. Has the Grantee submitted copies of invoices to support a claim for the cost of equipment or miscellaneous construction services? | | |
| b. Were adequate bidding procedures employed, and is there evidence of same if the cost is in excess of $2,500 for grants funded prior to March 1, 1976, or in excess of $10,000 for grants funded on or after that date? | | |
| c. Was eligibility of the item predetermined by the NHWS & PCC? | | |
| (1) If yes, allow the costs only to the extent previously approved unless justification for an overrun is submitted and approved. (Note the date of the NHWS & PCC prior approval letter directly on the invoice.) | | |
| (2) If prior approval was not given, it will be necessary to determine eligibility at this time. Generally the review is based on technical knowledge of the project and the determination is made by the NHWS & PCC engineer. | | |
| d. Complete the attached "Schedule #2." | | |
| 3. ENGINEERING COSTS: | | |
| a. Do we have a signed copy of an approvable engineering contract including any amendments for each element of engineering work? | | |
| b. Has a tabulation of all eligible engineering fees to date been submitted? | | |
| c. Have invoices clearly defining the service rendered and substantiating the tabulation been submitted? | | |
| d. Have we considered the following in our review of engineering costs? | | |
| (1) Were the charges computed in accordance with the appropriate engineering contract? | | |
| (2) Do any of the charges exceed the upset fee limits for services, as specified in the engineering contracts? | | |

| | YES | NO |
|---|---|---|
| (3) Had EPA or the NHWS & PCC previously established maximum limits to our participation in fees for specific services? | ___ | ___ |

| SERVICE | LIMIT |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

| | YES | NO |
|---|---|---|
| (4) Was preliminary or final engineering financed with an advance from the U. S. Department of HUD? If yes, identify the amount advanced, scope of work, the amount, and date of repayment. | ___ | ___ |

| $ Adv. Rec'd | Scope | $ Repaid | Date Repaid |
|---|---|---|---|
| | | | |

| | YES | NO |
|---|---|---|
| (5) Were all engineering expenses incurred prior to the grant award date claimed in the grant application? Identify those not claimed in the application and comment in payment letter that the expenses are ineligible. | ___ | ___ |

| Invoice Date | Service | $ Cost |
|---|---|---|
| | | |

| | YES | NO |
|---|---|---|
| (6) Were any charges paid by an existing authority other than the Grantee? If so, identify the costs and the authority, and comment in the payment letter that the costs are ineligible. | ___ | ___ |

| Invoice Date | Service | $ Cost | Authority |
|---|---|---|---|
| | | | |

| | YES | NO |
|---|---|---|
| (7) Costs which increased as a direct result of an extended construction period not approved by the NHWS & PCC are ineligible. Have we made the necessary adjustments? | ___ | ___ |
| (8) Check the arithmetic on the invoices. | ___ | |
| e. Complete the attached "Schedule #3." | ___ | |
| 4. LEGAL AND ADMINISTRATIVE COSTS: (Generally for final payments only) | | |
| a. Did the Grantee submit a separate tabulation of legal and administrative costs? | ___ | ___ |
| b. Have invoices clearly defining the service rendered and substantiating the tabulation been submitted? | ___ | ___ |
| (1) Check the arithmetic on the invoices. | ___ | |
| (2) Evaluate eligibility from available guidelines. | ___ | |

| | YES | NO |
|---|---|---|
| c. Complete the attached "Schedule #4." | | |

SECTION III. REVIEW OF FINAL PAYMENT ONLY:

1. The following certifications are required:

   a. Was the certification of project completion and acceptance submitted and is it signed by both the Grantee's Authorized Representative and a representative from the consulting engineering firm? ___ ___

   b. Did the Grantee's Authorized Representative submit his certification assigning to the United States its rights to refunds, rebates, and credits? ___ ___

   c. Did the Grantee's Authorized Representative submit his certification releasing the United States from all liabilities or claims arising out of the project? ___ ___

2. Has an official final inspection been conducted? ___ ___

   a. Final inspection was performed by: _____ (Name - Agency) on _____ (Date).

   b. Were any discrepancies noted that had to be corrected prior to final payment? (Identify the discrepancies and the status of each below). ___ ___

| DISCREPANCY | STATUS |
|---|---|
| | |
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| | |

3. Have project cut-off dates been identified? ___ ___

   a. The cut-off date for the project is generally interpreted as the date of the final field inspection. Incomplete work or pending change orders identified at that time are allowable beyond the cut-off date. In addition, certain costs, such as preparation of As-Build Drawing or the O&M Manual, continue beyond the cut-off date and are allowable.

   b. Project cut-off date: _____

| | YES | NO |
|---|---|---|
| e. Services allowed beyond the cut-off date: | | |

SECTION IV. COMPLETING THE SF-271:

1. Designate a column for "OFFICIAL USE ONLY" and fill in the approved costs from Schedules 1-4 on all applicable lines.

2. Compute line "q," Federal Share to date:

   a. Round down to nearest hundred dollars (except for finals).

   b. Reduce by an amount being withheld for violations of Davis-Bacon and Related Acts, if necessary.

   c. If payment percentage is limited due to regulatory or any other requirement, do not exceed the maximum amount which can be paid.

3. Complete line "t," Federal payments Previously Requested, with the value of cumulative payments previously approved.

4. Complete line "u," Amount Requested for Reimbursement, with the amount approved for this payment.

5. Report the % eligible construction-in-place, as computed by the following formula, on line "v," Percent of Project completed.

$$\% \text{ Complete} = \frac{\text{Approved eligible construction costs (Line "k")}}{\text{Pt. B eligible construction costs \& approved C.O.'s}}$$

6. Identify the amount to be paid at the top of the form.

7. Complete the authorization for payment at the bottom of the form as follows:

Approved for Payment: _____

Lindsay Collins, P.E., Director
Municipal Services
New Hampshire Water Supply and
Pollution Control Commission

8. Mail the completed SF-271, Payment Review Form and substantiating documentation (as applicable) to:

Environmental Protection Agency, Region I
Municipal Facilities Branch
Facilities Grants Section
John F. Kennedy Federal Building
Room 2300
Boston, MA 02203

SECTION V. REVIEW CERTIFICATION:

The Grantee is presently in substantial compliance with payment requirements and payment is recommended as reported in the column for "OFFICIAL USE ONLY" on the attached copy of SF-271.

Date

Registered Professional Engineer

CONSTRUCTION COSTS
(Catagory "E")

(Eligible Costs

| Cont. # | Name of Contractor | (1) TOTAL COSTS | (2) BID PRICE | (3) CURRENT PRICE | (4) EST. OF WORK-IN-PLACE | DATE EST. | ELIG. CATS |
|---|---|---|---|---|---|---|---|
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| | TOTAL | | | | | | |

Notes:

A - Percentage to be used for Proration of Associated Costs:
1) For partial payments % used for Part B (Column 2 ÷ Column 1)
2) For final payments % used for actual costs (Column 4 ÷ 1)

B - Column Breakdown
1) Total Construction Cost - Total cost from Part B for partials and actual cost for finals
2) Bid Price - Eligible cost from Part B
3) Current Price - Column 2 plus approved eligible change orders and extra work orders for partials and same as column 4 for finals
4) Est. of Work-In-Place - Eligible Work-in-Place shown on monthly estimate



Exhibit "E"

EQUIPMENT COSTS
(Catagory "1")

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
|---|---|---|---|---|---|
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| | | TOTAL | | | |

MISCELLANEOUS CONSTRUCTION COSTS
(Catagory "n")

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
|---|---|---|---|---|---|
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| | | TOTAL | | | |

Schedule No. 2

63-935 O--80--29

**Check conformity with Engineering Contract**
**Check Eligibility**

| ($)Eligible Portion | Category | Payee | Services Rendered | Elig. Ratio | Total Cost |
|---|---|---|---|---|---|
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_____________ TOTAL

Summary:

| Catagory | | ($) Elig. portion |
|---|---|---|
| b | - | $ |
| d | - | $ |
| e | - | $ |
| f | - | $ |
| TOTAL | | $ |

Schedule No. 3

LEGAL COSTS

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
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| | | | | | |
| | | = Total<br>X Eligibility Ratio ( ) = | | | |

Eligible Total _____

ADMINISTRATIVE COSTS

| Amount Paid | | Payee | Service Rendered | Invoice Date | Voucher Number |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | = Total<br>X Eligibility Ratio ( ) = | | | |

Eligible Total _____

Grand Total Legal & Admin. Costs _____
(Category "a")

Schedule No. 4

COMMENTS

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APPENDIX P

FORCE ACCOUNT WORK CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of Force Account Work.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

APPENDIX P

2. Force Account Work: The Force Account Work satisfies the following:

a) The Applicant has not initiated the proposed Force Account Work (prior approval required). (2a)_____

b) The Applicant, as indicated by proper documentation, has sufficient qualified personnel to perform the work. (2b)_____

c) The work can be performed more economically by this method than any other or emergency circumstances dictate the use of this method. (2c)_____

d) The Applicant has an adequate method of accounting. (2d)_____

e) The proposed costs are reasonable. (2e)_____

f) The provisions of the Copeland Anti-Kickback Regulations are included in the proposal. (2f)_____

g) Adequate insurance coverage is provided. (2g)_____

Reference: Handbook of Procedures, Construction Grant Program for Municipal Wastewater Treatment Works, U. S. EPA,

_____
Date

_____
Registered Professional Engineer

Revision 10/6/78

APPENDIX Q

SEWER USE ORDINANCE CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the Sewer Use Ordinance.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

2. Compliance with Sample Sewer Ordinance: The Sewer Ordinance is in compliance with the Sample Sewer Ordinance for the State of New Hampshire. (2)_____

APPENDIX Q

3. The user charge system of the grantee has been incorporated in the sewer use ordinance in sufficient form to insure efficient operation of such system. (3)_____

4. The industrial cost recovery system has been incorporated in the sewer use ordinance in sufficient form to insure efficient operation of such system. (4)_____

5. Municipalities receiving waste treatment services from the grantee have adopted user charge/industrial cost recovery systems in accordance with the grantee's system. (5)_____

_____
Date

_____
Registered Professional Engineer

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APPENDIX R

PLANS AND SPECIFICATIONS CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____
Contract Name and Number

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the Plans and Specifications.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

2. Conformance with Facilities Plan: The plans and specificiations conform with the recommendations of the approved facilities plan. (2)_____

APPENDIX R

3. Conformance with Design Standards: The Plans and Specifications have been prepared in accordance with the most recent set of "Standards of Design for Sewerage and Waste Treatment Systems", prepared by NDI WS & PCC, and meet applicable EPA design criteria, (3)_____

4. Biddability and Constructability: The contract documents meet up-to-date requirements for biddability and constructability, within the meaning of the EPA/Corp National Agreement. (4)_____

5. Sedimentation Control: The project incorporates adequate sedimentation measures. (5)_____

6. Plan of Operation: The preliminary Plan of Operation is acceptable. (6)_____

7. Value Engineering: Where appropriate, the Plans and Specifications incorporate the Value Engineering recommendations to the maximum extent feasible. (7)_____

8. Administrative Items: The following list of Administrative Items are included in each set of specifications: (8)_____

A. Bid Guarantee - 5% (Advertisement) Page_____

B. Paragraph 40 CFR 35.938-4(c)(5) (Advertisement) Page_____

C. Non-Discrimination Reference Paragrpah (Advertisement) Page_____

D. Acknowledgement of Addenda (Bid Proposal) Page_____

E. Time of Completion (Bid Proposal & Agreement) _____Days

F. Liquidated Damages (Bid Proposal & Agreement) $_____

G. Separate Eligible & Non-Eligible Items (Bid) Yes___No___

H. Reference to 40 CFR 35.938-7 (Agreement) Page_____

I. Manufacturers Experience Clause (Information) Page_____

APPENDIX B

J. EPA Project Sign Reference Paragraph (Information) Page_____

K. Federal Wage Decision Reference Paragraph (Information) Page_____

L. Safety & Health Paragraph (Information) Page_____

M. Non-Discrimination (5 Standard Paragraphs)(Information) Page_____

N. Access to site by EPA & NH WS & PCC Page_____

O. 100% Performance Bond Page_____

P. 100% Payment Bond Page_____

Q. "or equal" (35.936-13) Clause Page_____

R. Buy American provisions (Information & Appendix C-2) Page_____

S. Equal Employment Opportunity Clauses (Advertisement and Information) Page_____

T. Designation of work to be performed under heavy or building wage rates Page_____

9. INSURANCE LIMITS: The following list of insurance requirements are included in each set of specifications. (9)_____

A. Workmen's Compensation & Employer's Liability Insurance (Statutory) Page_____

B. Contractor's Property Damage (200,000/2000,000 Min.) Page_____

C. Automobile Public Liability (500,000/500,000 Min.) Page_____

D. Automobile Property Damage (200,000/200,000 Min.) Page_____

E. Builder's Risk (Fire Insurance) & Flood Insurance (Insurable Value of Contract) Page_____

F. Owner's Protective Liability (Indemnity) (Same as Public Liability & Property Damage) Page_____

G. Contractor's Public Liability (500,000/500,000 Min.) Page_____

APPENDIX R

10. STANDARD CONDITIONS: Each set of specifications contain the following conditions:

A. Copy of Standard General Conditions (Optional) Yes____ No_____

B. Copy of Appendix C-2 (12/29/76) Yes____ No_____

C. Copy of Paragraphs 40 CFR 35.936, 35.938 and 35.939. Yes____ No_____

D. Copy of Labor Standards (EPA Form 5720-4) Yes____ No_____

E. Copy of EPA Project Sign Detail Yes____ No_____

F. Copy of Notice to Labor Unions (Standard Form) Yes____ No_____

G. Copy of Certification of Non-Segregated Facilities (Standard Form) Yes____ No_____

H. Copy of Federal Wage Rates. Yes____ No_____

_____
Date

_____
Registered Professional Engineer

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APPENDIX S

CONTRACT APPROVAL CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____
Contract Name and Number

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the award of the construction contract.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

2. Review Checklist Items: The following checklist has been completed and indicates compliance with all applicable requirements. (2)_____

CONTRACT APPROVAL CHECKLIST

PROJECT NO. _____ GRANTEE _____

| CONTRACT NO. | CONTRACT NAME | CONTRACTOR | $ TOTAL |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

SECTION I. ADMINISTRATIVE REVIEW:

PART A. GENERAL PROJECT REVIEW:

| | YES | NO |
|---|---|---|
| 1. Has the Grantee returned the signed original of the Grant Agreement and all Grant Amendments? | | |
| 2. Has a Compliance Report been approved? | | |
| 3. Engineering Contracts: | | |
| a. Do we have a signed copy for each phase: (Preliminary _____; Design_____; Construction _____; Other _____)? | | |
| b. Do current contracts for grants funded after June 30, 1975 include the access to records clause? | | |
| c. Are current contracts for grants funded after June 30, 1975, of an acceptable type? | | |
| 4. Is Flood Insurance required? If so, identify the contracts which have insurable eligible structures and comment in approval letter that evidence of insurance coverage must accompany the next grant payment request. | | |
| 5. Is approval to award subject to the Grantee's compliance with any special grant conditions? If so, identify the condition and the Grantee's status of compliance: | | |

| CONDITION NO. | BRIEF DESCRIPTION | STATUS |
|---|---|---|
| | | |
| | | |
| | | |

| | YES | NO |
|---|---|---|
| 6. Have we received a final legal opinion relative to the Grantee's title to all necessary sites, easements and rights-of-way? If not, notify the Grantee that it must be furnished prior to submitting requests for partial grant payment. | ___ | ___ |
| **PART B.** REVIEW OF BIDDING PROCEDURES | | |
| 1. BID ADVERTISING: Has the Grantee submitted evidence that adequate public notice was given prior to accepting and opening bids? (Generally 30 days in a publication with State-wide curculation). | ___ | ___ |
| 2. BID TERMINATION: Are bids still valid? | | |

| CONTRACT NO. | BID OPENING DATE | NO. OF DAYS BIDS ARE VALID | BID EXPIRATION DATE |
|---|---|---|---|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

| | YES | NO |
|---|---|---|
| 3. BID TABULATION: Has the Grantee submitted a tabulation of bids for each contract? | ___ | ___ |
| a. Check the arithmetic on the bid tabulations to verify the identity of the lowest bidder. | ___ | |
| b. Has the Grantee selected the apparent lowest responsive, responsible bidder in each case? If not, identify the situation and reference the Grantee's justification. | ___ | ___ |
| _____ | | |
| _____ | | |
| c. If the apparent lowest responsive, responsible bidder was not selected, does this office concur with the Grantee's selection? Identify the basis on which EPA concurred or disagreed with the Grantee's selection. | ___ | ___ |
| _____ | | |
| _____ | | |
| 4. BID PROPOSAL: Has a copy of the lowest responsive, responsible bidder's proposal been submitted for each contract? | ___ | ___ |
| a. Is each proposal completed and signed? | ___ | ___ |
| b. Does the bid price agree with the calculated price on the bid tabulation? | ___ | ___ |

| | YES | NO |
|---|---|---|
| c. Are eligible/ineligible costs separated on the proposal or was an itemized breakdown of ineligible costs submitted? | ___ | ___ |
| d. Has each contractor acknowledged appropriate addenda on the proposal? | ___ | ___ |
| e. Have all addenda been approved by the NHWS & PCC? | ___ | ___ |

| CONTRACT NO. | ADDENDA ACKNOWLEDGED BY CONTRACTOR | ADDENDA APPROVED BY NHWS & PCC |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| | YES | NO |
|---|---|---|
| 5. FEDERAL WAGE DETERMINATION: Is the Federal Wage Determination used valid? | ___ | ___ |
| a. Identify the proper determination applicable to each contract and the means by which it was incorporated into the as-bid contract specifications? | ___ | ___ |

| CONT. NO. | WAGE DET. NO. | EFF. DATE OF WAGE DET. | EXP. DATE OF WAGE DET. | MEANS |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| | YES | NO |
|---|---|---|
| 6. GRANTEE'S INTENT: Have we received a copy of the Grantee's letter of intent to award the contract which was sent to the proper bidder? | ___ | ___ |
| 7. DEBARRED CONTRACTOR: Is the prospective contractor (s) on the current listing of "Debarred Contractors?" | ___ | ___ |
| 8. BID PROTESTS: Has a protest been filed with the Grantee or EPA concerning the award of any contract? (Rejection of bids must conform with FRM 78-8). If so, identify below: | ___ | ___ |

| CONT. NO. | PROTEST FILED BY | AGAINST | REASON | DISPOSITION |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| | YES | |
|---|---|---|
| **PART C.** REVIEW BY THE CR&UA OFFICE AND/OR DEPARTMENT OF LABOR (Executive Order 11246): | | |
| 1. Has the CR&UA Office been notified of the pending contract award (s)? | | |
| A. Date of Notification: _____ | | |
| B. Scheduled Date of Preaward Conference: _____ | | |
| C. Date Approval by CR&UA Office received: _____ | | |
| **PART D.** REVIEW OF THE REVISED PROJECT COST ESTIMATE SUMMARY: | | |
| 1. Has the Grantee submitted a signed revised project cost estimate summary? | | |
| 2. LEGAL & ADMINISTRATIVE COSTS: Are the estimated fees (allowances) for these services equal to or less than 1% each? | | |
| 3. CONTINGENCY: Is the contingency allowance reasonable? | | |
| A. Normally, the contingency allowed is equal to 5% of construction costs for bid contracts; plus, 10% of construction costs of "later contracts". | | |
| B. Adjust the contingency allowance as necessary to net a "rounded" amount as the total eligible project cost estimate. | | |
| 4. GRANT ADJUSTMENT: Do the costs on the Revised Project Cost Estimate Summary indicate a grant adjustment is required at this time? (Normally, an adjustment is only accomplished once all contracts are bid). | | |
| A. INCREASE: Before processing an increase, the Grantee must officially request the adjustment and the State Agency must formally recommend the action to EPA. Additionally, adequate justification of the cost increase must be received. | | |
| B. DECREASE: No further action by the Grantee or State Agency is required before this adjustment can be processed. | | |
| 5. SUFFICIENT LOCAL FUNDING: Has the Grantee demonstrated that sufficient local funding authorization is available to cover the non-Federal share of the total project cost? | | |
| **SECTION II.** ENGINEERING REVIEW: | | |
| **PART A.** REVIEW OF BID PROPOSAL AND SPECIFICATIONS: | | |
| 1. Have all the comments included in the plans and specifications approval letter been answered or adequately resolved? | | |
| 2. Does the low bidder's bid proposal match the one in the approved specifications, i.e., quantities and eligibility? | | |
| 3. Are the unit prices (or lump sum) in the low bidder's proposal reasonable? | | |



63-935 O—80——30

| | YES | NO |
|---|---|---|
| 4. Does the proposal appear to be balanced? | | |
| PART B. REVIEW OF ENGINEERING COSTS: | | |
| 1. Has a detailed breakdown of engineering costs been submitted? | | |
| 2. Do the costs on the breakdown match the costs in the approved contracts? | | |
| 3. Is participation requested in costs incurred prior to the grant award date, but which were not claimed on the grant application? Such costs are ineligible. | | |
| 4. Are other ineligible costs separated? | | |
| 5. Identify any services for which EPA or the NH WS & PCC have established upset fee limits which differ from contract limits. | | |

| SERVICE | UPSET LIMIT |
|---|---|
| | |
| | |
| | |

6. Are engineering costs reasonable?

SECTION III. REVIEW CERTIFICATION:

The Grantee is in substantial compliance with bidding requirements and approval to award each contract is recommended as identified on Page 1.

Date

Registered Professional Engineer

COMMENTS

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APPENDIX T

CHANGE ORDERS, REVISED PAGES AND ADDENDA

CHECKLIST

(STAGE A)

Applicant Name: _____

Project Name: _____
Contract Name and Number

EPA Project Number: _____

Date of Receipt: _____

Consulting Engineer: _____

Change Order/Addendum No: _____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of (Revised Pages)(Addenda) (Change Orders).

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

APPENDIX T

2. Revised Pages and Addenda: The revised pages or addenda satisfy the following:

   a) Clarify the bid documents. (2a)_____

   b) Incorporate NH WS & PCC or EPA requirements. (2b)_____

   c) The subject documents are consistent with the scope of the approved plans and specifications. (2c)_____

3. Change Orders: The change order satisfies the following:

   a) The change order is eligible by NH WS & PCC and EPA criteria. (3a)_____

   b) The change order has been negotiated in accordance with the requirements set forth at 40 CFR 35.938-5 of the 12/17/75 Federal Register. (3b)_____

   c) The change order has been signed by the contractor, engineer and grantee. (3c)_____

   d) The scope of work included under this change order is necessary for the effective and efficient operation and maintenance of the treatment works, but does not include actual maintenance tasks. (3d)_____

   e) The documentation submitted by the consulting engineer clearly indicates the need for the change order by the use of sketches, diagrams and a narrative statement. (3e)_____

   f) Reference to the plans and specifications not including the proposed change order has been indicated. (3f)_____

APPENDIX T

g) The cost is reasonable. (3g)_____

h) A breakdown of all costs is included to indicate how the total cost was obtained. (3h)_____

i) The change order is consistent with the scope of the approved plans and specifications. (3i)_____

j) Any extension of time included in this change order has been fully justified. (Will it impact any schedule contained in the grantee's NPDES permit or the budget period in the Step 3 grant?) The presently scheduled completion date is _____. (3j)_____

k) Any sanitary sewers included in the scope of this change order meet the allowability criteria outlined in 40 CFR 35.925-13 and have further been determined to be consistent with the criteria set forth in Program Requirements Memorandum 78-9. (3k)_____

l) If the subject change order causes the net value of all change orders in the project to exceed the contingency, the Applicant and EPA have been notified that a grant adjustment may be necessary. (3l)_____

_____ Date

_____ Registered Professional Engineer

Revision 10/6/78

APPENDIX U

OPERATION AND MAINTENANCE MANUAL CHECKLIST

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the Operation and Maintenance Manual.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

2. Review Checklist Items: The following checklist has been completed and indicates compliance with all applicable requirements. (2)_____

## Review Checklist for Operation & Maintenance Manuals

A. Small and Mid-size Wastewater Treatment Facilities (up to 10 MGD)

Review each manual to insure that the following items are adequately addressed:

| | YES | NO | N/A |
|---|---|---|---|
| I. Introduction | | | |
| A. Operation and managerial responsibility | | | |
| B. Description of plant type and flow pattern | | | |
| C. Percent efficiency expected and how plant should operate | | | |
| D. Principal design criteria | | | |
| E. NPDES permit requirements | | | |
| II. Process Description (functions, relation to other plant units, schematic diagrams) | | | |
| A. Pumping | | | |
| B. Screening and comminution | | | |
| C. Grit removal | | | |
| D. Sedimentation (primary) | | | |
| E. Aeration and reaeration | | | |
| F. Sedimentation (secondary) | | | |
| G. Trickling filters | | | |
| H. Sand filters | | | |
| I. Sludge digestion | | | |
| J. Sludge conditioning | | | |
| K. Sludge disposal | | | |
| L. Gas control and use | | | |
| M. Disinfection | | | |
| N. By-pass controls and excess flow treatment facilities | | | |
| O. Waste stabilization lagoons | | | |
| P. Other | | | |
| III. Detailed Operation and Controls (routine, alternate, emergency, description of various controls, recommended settings, reference to schematic diagrams, failsafe features) | | | |
| A. Manual | | | |
| B. Automatic | | | |
| C. Physical | | | |
| D. Chemical | | | |
| E. Biological (including bacteriological) | | | |
| F. Industrial wastes monitoring | | | |
| G. Safety features | | | |
| H. Problems, causes, and cures | | | |
| IV. Laboratory Controls (what and why tests are made, interpretation of results, and how samples are obtained) | | | |
| A. For each process description given above | | | |
| 1. Sampling | | | |
| 2. Flow controls | | | |
| 3. Analysis | | | |

| | YES | NO | N/A |
|---|---|---|---|
| B. Monitoring of effluent and receiving waters | | | |
| C. Water quality standards | | | |
| V. Records (importance of records, graphing test results, example and sample forms) | | | |
| A. Process operations | | | |
| B. Laboratory | | | |
| C. Reports to be submitted to State agencies | | | |
| D. Maintenance | | | |
| E. Operating costs | | | |
| VI. Maintenance (schedule - daily, weekly, monthly, etc. - reference to pages in manufacturers' manuals) | | | |
| A. Manufacturers' recommendations | | | |
| B. Preventative maintenance summary schedule | | | |
| C. Special tools and equipment | | | |
| D. Housekeeping schedule | | | |
| VII. Safety | | | |
| A. Sewers | | | |
| B. Electrical equipment | | | |
| C. Mechanical equipment | | | |
| D. Explosion and fire hazards | | | |
| E. Health hazards | | | |
| F. Chlorine handling | | | |
| G. Aeration tank hazards | | | |
| H. Recommended safety equipment | | | |
| VIII. Utilities (source, reliability, cost) | | | |
| A. Electrical | | | |
| B. Gas | | | |
| C. Water | | | |
| D. Heat | | | |
| IX. Staffing and Training (detail of job requirements, task plan estimating man-hours per month and year) | | | |
| A. Personnel requirements | | | |
| B. Qualifications and background | | | |
| C. Certifications | | | |
| D. Administration and supervision | | | |
| E. Laboratory | | | |
| X. Emergency Operating Plans and Procedures | | | |
| A. Emergency conditions and response plans (describe effective automatic response for probable emergency situations) | | | |
| 1. Power failure | | | |
| a. Entire plant | | | |
| b. Treatment process | | | |

| | YES | NO | N/A |
|---|---|---|---|
| c. Pumping stations | | | |
| d. False alarms | | | |
| 2. Flood, hurricane, earthquake, fire, windstorms, freezing, explosions | | | |
| 3. Contamination of potable water supply | | | |
| 4. Hydraulic overloading, ruptures, and stoppages | | | |
| 5. Bypassing | | | |
| 6. Equipment breakdowns and process failures | | | |
| 7. Failure of emergency warning equipment | | | |
| 8. Labor strikes | | | |
| 9. Spills of oils, toxic or hazardous materials into sewers or at treatment works | | | |
| 10. Personnel injury | | | |
| 11. Other types of emergency situations | | | |
| B. General pattern of response actions for each type of emergency | | | |
| 1. Early warning report | | | |
| 2. Investigate | | | |
| 3. Assess severity of the situation (including threat to public health, water supplies, other water uses, etc.) | | | |
| 4. Determine response course of action (minor, moderate, or major emergency) and implement appropriate emergency plan | | | |
| 5. Follow appropriate notification schedule (local - State - Federal) depending on type of emergency | | | |
| C. Emergency readiness program (describe system or program for maintaining readiness) | | | |
| 1. Equipment and parts inventory and chemical supplies | | | |
| 2. Personnel training on emergency operating procedures | | | |
| 3. Charts on location of facilities (for example): | | | |
| a. Sewers | | | |
| b. Pump stations | | | |
| c. Sewer overflow points | | | |
| d. Flow regulators, valves, and controls | | | |
| e. Wastewater storage | | | |
| f. Other pertinent items | | | |
| 4. Alert and response system for each type of emergency | | | |
| 5. Early warning systems where applicable to warn downstream water users of spills, etc. | | | |
| 6. Industrial waste monitoring and warning system within sewer networks to alert plant operators of spills and changes in waste consistency or hydraulic conditions that may adversely affect waste treatment | | | |
| XI. Appendix | | | |
| A. Schematics | | | |
| B. Valve indices | | | |
| C. Sample forms | | | |
| D. Chemicals used in plant | | | |
| E. Chemicals used in laboratory | | | |

| | YES | NO | N/A |
|---|---|---|---|
| F. Water quality standards | | | |
| G. Detailed design criteria | | | |
| H. Equipment suppliers | | | |
| I. Suppliers' manuals (may be bound separately) | | | |
| J. Infiltration controls (ordinances) | | | |
| K. Industrial waste controls (ordinances) | | | |
| L. Sewer Ordinance | | | |

## Review Checklist for Operation & Maintenance Manuals

A. Large Wastewater Treatment Facilities (10 MGD and over)

Review each manual to insure that the following items are adequately addressed:

| | YES | NO | N/A |
|---|---|---|---|
| I. Introduction | | | |
| A. Description of treatment facility | | | |
| B. Plant design parameters | | | |
| 1. Loadings (present and forecasted) | | | |
| a. Hydraulic | | | |
| b. Organic | | | |
| c. Industrial | | | |
| 2. Design efficiencies | | | |
| C. Design criteria | | | |
| 1. Unit sizes | | | |
| 2. Numbers of units | | | |
| 3. Forecast of expansion | | | |
| II. Process Description | | | |
| A. Description by sub-system | | | |
| 1. Pretreatment | | | |
| 2. Primary system | | | |
| a. Clarification | | | |
| b. Scum and solids handling | | | |
| 3. Secondary system | | | |
| a. Biological units | | | |
| b. Phys-chem units | | | |
| c. Final clarifiers | | | |
| d. Scum and solids handling | | | |
| 4. Tertiary system | | | |
| a. Biological units | | | |
| b. Phys-chem units | | | |
| c. Final clarifiers | | | |
| d. Scum and solids handling | | | |
| 5. Disinfection | | | |
| 6. Solids handling | | | |
| a. Digestion | | | |
| b. Dewatering | | | |
| c. Disposal | | | |

| | YES | NO | N/A |
|---|---|---|---|
| B. Interrelation of sub-systems | | | |
| 1. Flexibility within system | | | |
| 2. Flexibility between systems | | | |
| 3. Emergency operation | | | |
| C. Plans and/or schematics | | | |
| III. Process Operation | | | |
| A. Prime mode | | | |
| 1. Flow pattern | | | |
| 2. Operating limits | | | |
| 3. Laboratory control | | | |
| a. Identify test | | | |
| b. Locate sampling points | | | |
| c. Establish testing frequency | | | |
| B. Alternate modes | | | |
| 1. Flow patterns | | | |
| 2. Operating limits | | | |
| IV. Staffing Study | | | |
| A. Staffing study | | | |
| B. Job descriptions | | | |
| V. Emergency Operating Plans and Procedures | | | |
| A. Emergency conditions and response plans (describe effective automatic response for probable emergency situations) | | | |
| 1. Power failure | | | |
| a. Entire plant | | | |
| b. Treatment process | | | |
| c. Pumping stations | | | |
| d. False alarms | | | |
| 2. Flood, hurricane, earthquake, fire, windstorms, freezing, explosions | | | |
| 3. Contamination of potable water supply | | | |
| 4. Hydraulic overloading, ruptures, and stoppages | | | |
| 5. Bypassing | | | |
| 6. Equipment breakdowns and process failures | | | |
| 7. Failure of emergency warning equipment | | | |
| 8. Labor strikes | | | |
| 9. Spills of oils, toxic or hazardous materials into sewers or at treatment works | | | |
| 10. Personnel injury | | | |
| 11. Other types emergency situations | | | |

| | YES | NO | N/A |
|---|---|---|---|
| B. General pattern of response actions for each type of emergency | | | |
| 1. Early warning report | | | |
| 2. Investigate | | | |
| 3. Assess severity of the situation (including threat to public health, water supplies, other water uses, etc.) | | | |
| 4. Determine response course of action (minor, moderate or major emergency) and implement appropriate emergency plan | | | |
| 5. Follow appropriate notification schedule (local - State - Federal) depending on type of emergency | | | |
| C. Emergency readiness program (describe system or program for maintaining readiness) | | | |
| 1. Equipment and parts inventory and chemical supplies | | | |
| 2. Personnel training on emergency operating procedures | | | |
| 3. Charts on location of facilities (for example): | | | |
| a. Sewers | | | |
| b. Pump stations | | | |
| c. Sewer overflow points | | | |
| d. Flow regulators, valves, and controls | | | |
| e. Wastewater storage | | | |
| f. Other pertinent items | | | |
| 4. Alert and response system for each type of emergency | | | |
| 5. Early warning systems where applicable to warn downstream water users of spills, etc. | | | |
| 6. Industrial waste monitoring and warning system within sewer networks to alert plant operators of spills and changes in waste consistency or hydraulic conditions that may adversely affect waste treatment | | | |
| VI. Appendix | | | |
| A. Schematics | | | |
| B. Chemicals used in plant | | | |
| C. Chemicals used in laboratory | | | |
| D. Water quality standards | | | |
| E. Detailed design criteria | | | |
| F. Equipment suppliers | | | |
| G. Suppliers' manuals | | | |
| H. Infiltration controls (ordinances) | | | |
| I. Industrial waste controls (ordinances) | | | |
| J. Technical library | | | |
| K. Sewer Ordinance | | | |

_____ Date

_____ Registered Professional Engineer

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APPENDIX V

## INTERIM AND FINAL INSPECTION CHECKLIST*

(STAGE A)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the inspection of the construction project.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

2. Review Checklist Items: The following checklist has been completed and indicates compliance with all applicable requirements. (2)_____

* The normal frequency for Interim Inspections is as follows:

| Eligible Cost of Project | Inspection Frequency |
|---|---|
| Exceeds $10 Million | Monthly |
| 5 to 10 Million | Every 2 months |
| 2 to 5 Million | Every 3 months |
| Less than 2 Million | Every 6 months |

This frequency may be altered at the discretion of either the Commission or EPA.

Inspection Date: _____
Time: _____
No.: _____

PROJECT
INSPECTION REPORT
ENVIRONMENTAL PROTECTION AGENCY
REGION I

TYPE OF INSPECTION - INTERIM ( ) FINAL ( )

I. GENERAL INFORMATION

A. Project
1. Name: _____
2. Number: _____
3. Location: _____
(City) (County) (State) (State District)

B. Project Description: STP _____ INT _____ FM _____
P.S. _____ COLL _____ OTHER _____

C. Inspection Participants:

| NAME | TITLE | REPRESENTING |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

D. Date of last inspection: _____
1. Inspecting Agency
a. State: _____
b. COE/EPA: _____
2. Deficiencies noted in last inspection report and corrective action taken: _____



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E. Construction Progress Information
   1. Estimated percent completion of total project: _____
   2. Scheduled completion of total project: _____

II. GRANT ADMINISTRATION

A. Project Accounting Records
   1. Location of fiscal records: _____
   2. Are project accounting records separate, adequate, orderly, and complete as of inspection date? Yes ( ) No ( ) Comments ( )
   3. Do the project accounting records distinguish between allowable and unallowable costs supported by receipt or certified contractor invoices? Yes ( ) No ( ) Comments ( ) NA ( )
   4. Comments relative to Project Accounting Records: _____

B. Program Requirements
   1. Has the Grantee made satisfactory progress in the development of or received EPA approval for the following:
      a. User Charge: Yes ( ) No ( ) Comments ( ) NA ( )
      b. Industrial Cost Recovery: Yes( ) No ( ) Comments ( ) NA ( )
      c. Service Agreements: Yes ( ) No ( ) Comments ( ) NA ( )
      d. Sewer Use Ordinance: Yes ( ) No ( ) Comments ( ) NA ( )
   2. Is Industrial Pretreatment required? Yes ( ) No ( ) NA ( )
   3. Are industrial discharges pretreating wastes as required? Yes ( ) No ( ) Comments ( ) NA ( )
   4. Are other pertinent Special Grant Conditions being complied with? Yes ( ) No ( ) Comments ( ) NA ( )
   5. Comments relative to the above: _____
   6. Operation and Maintenance
      a. Has the Chief Plant Operator been hired: Yes ( ) No ( ) Comments ( ) NA ( )
      b. If certified, give classification: _____
      c. If the Chief Plant Operator has not been hired, at what percentage completion of the wastewater treatment facility does the Grantee expect to hire this individual: _____%
      d. Is the Grantee preparing an operation and maintenance manual? Yes ( ) No ( ) Comments ( ) NA ( )

e. Has the Final Plan of Operation been approved by EPA?
Yes ( ) No ( ) Comments ( ) NA ( )

f. Comments relative to Operation and Maintenance: _____

III. CONSTRUCTION MANAGEMENT - CONTRACT ADMINISTRATION

A. Adequacy of supervision by Grantee or Agent

1. Is the resident inspection being performed by the Grantee ( ) or consulting engineer ( )?

2. If the Grantee is providing any resident inspection or construction administration services, has EPA given written approval of the Grantee's force account methods including estimated costs? Yes ( ) No ( ) Comments ( ) NA ( )

3. What is the inspection frequency? _____

4. Does the resident engineer appear to have a clear understanding of his duties and responsibilities?
Yes ( ) No ( ) Comments ( )

5. Is the staff of sufficient size to adequately supervise the project? Yes ( ) No ( ) Comments ( )

6. What is the size of the inspection staff and their disciplines; how assigned to the various contracts? _____

7. Does the resident engineer appear to exercise proper control over the project Yes ( ) No ( ) Comments ( )

8. Is the resident engineer receiving the necessary assistance from the main office? Yes ( ) No ( ) Comments ( )

9. Is a daily log kept by the resident showing delays in work, notices to proceed, stop orders, notices of unacceptable material or any other significant occurrence in the construction progress?
Yes ( ) No ( ) Comments ( )

10. Are plans, specifications, change orders, shop drawings, etc., kept in an orderly fashion?
Yes ( ) No ( ) Comments ( )

11. Are adequate records kept of materials and equipment testing?
Yes ( ) No ( ) Comments ( )

12. If a unit price job, are there adequate controls over quanitity computation?
Yes ( ) No ( ) Comments ( ) NA ( )

13. Are "as-built" drawings, sketches or notes, kept current?
Yes ( ) No ( ) Comments ( )

14. Are estimates timely and in sufficient detail to assure fair payments for the work accomplished?
Yes ( ) No ( ) Comments ( )

15. Are the weekly payrolls of contractors being received and checked?
Yes ( ) No ( ) Comments ( )

16. Comments relative to adequacy of supervision: _____

IV. CONSTRUCTION CONTRACTS/CONTRACTORS - Use separate page for each contract.

A. General

1. Contract Number: _____

2. Contractor: _____

3. Contract Description: _____

_____

_____

_____

4. Total Contract Cost: $_____

5. Eligible Contract Cost: $_____

6. Contract Completion Time: _____

7. Date Contract Signed: _____ Date Work Started: _____

8. Scheduled Completion Date: _____

9. Projected Completion Date: _____

10. Percent Complete as of this inspection: _____

11. Is construction on schedule? Yes ( ) No ( ) Comments ( )

_____

_____

_____

_____

12. Are thar any major change orders pending?
Yes ( ) No ( ) Comments ( )

_____

_____

_____

_____

_____

(Attach additional pages as necessary)

APPROVED CHANGE ORDERS

| Number | EPA Approval Date | Description | Amount | Construction Underway? Yes ( ) No ( ) |
|---|---|---|---|---|
| | | | $ | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments: _____

NOTE: Do not repeat change orders listed on previous inspection

B. General Adequacy of Construction

1. Is untreated wastewater being bypassed around the facility (or unit operations) due to the construction?
   Yes ( ) No ( ) Comments ( ) NA ( )
2. Does construction conform to the approved plans, specifications and approved change orders?
   Yes ( ) No ( ) Comments ( ) NA ( )
3. Is the material and equipment on the site being properly protected and stored?
   Yes ( ) No ( ) Comments ( ) NA ( )
4. Is the contractor performing the work in an efficient manner, with sufficient equipment and workmen?
   Yes ( ) No ( ) Comments ( ) NA ( )
5. Are the specified provisions for site drainage, dust and erosion control adequate?
   Yes ( ) No ( ) Comments ( ) NA ( )
6. Are tests for materials and equipment being conducted in accordance with the specifications and noted in logs and reports? Yes ( ) No ( ) Comments ( ) NA ( )
7. Do all tests indicate that the minimum specifications requirements have been met? Yes ( ) No ( ) Comments ( )
8. Are slump and compressive tests for concrete taken?
   Yes ( ) No ( ) Comments ( )
9. Do all test indicate that the minimum specification requirements for concrete tests are met?
   Yes ( ) No ( ) Comments ( )
10. Are infiltration/exfiltration tests conducted on lines?
    Yes ( ) No ( ) Comments ( )
11. Do all infiltration/exfiltration tests indicate that the minimum specification requirements have been met?
    Yes ( ) No ( ) Comments ( )
12. Is formwork and reinforcing steel placement checked before concrete is poured?
    Yes ( ) No ( ) Comments ( )
13. Comments relative to adequacy of construction:
    _____
    _____
    _____
    _____
    _____
14. Is the EPA Project Sign erected and appropriately displayed?
    Yes ( ) No ( ) Comments ( )
15. Is the Notice to Labor Union Posted?
    Yes ( ) No ( ) Comments ( )
16. Is the proper wage decision posted and does the contractor's payrolls agree with the wage decisions?
    Yes ( ) No ( ) Comments ( )
17. Comments relative to the above: _____
    _____
    _____
    _____
    _____

V. BRIEF SUMMARY OF INSPECTION WITH DEFICIENCIES, COMMENTS, RECOMMENDATIONS, SUGGESTED ACTIONS (Attach photos if applicable)

VI. Recommendation for Processing Final/Interim Payment: _____

FINAL INSPECTIONS ONLY

I. WASTEWATER TREATMENT FACILITY COMPLETION INFORMATION

A. Are facilities complete and operating: Yes ( ) No ( ) Comments ( )

B. Date facility placed in operation: _____

C. Design Flow _____ Present Average Flow _____
Present Peak Flow _____

D. List control and general plant performance tests being conducted such as percentage of BOD and suspended solids removal, etc. (from monthly operating records):

_____
_____
_____
_____
_____

E. Are chlorination facilities in use on a seasonal/continuous basis?
Yes ( ) No ( ) Comments ( )

F. Operation and Maintenance

1. Chief Operator: Name _____
Certified _____
Classification _____

2. Has the Grantee hired the operation and maintenance staff and provided training as appropriate? By whom? _____
Yes ( ) No ( ) Comments ( ) NA ( )

3. Does general operation and maintenance of plant indicate sufficient staffing, adequate testing and control measures?
Yes ( ) No ( ) Comments ( ) NA ( )

4. Have specified laboratory facilities been provided?
Yes ( ) No ( ) Comments ( )

5. Is the final EPA approved operation and maintenance manual with schedule for routine maintenance and testing readily available and are procedures being carried out in accordance with the manual?
Yes ( ) No ( ) Comments ( )

6. Has the chief operator received copies of the approved operation and maintenance manual and the plan of operation?
Yes ( ) No ( ) Comments ( )

G. Do the facilities conform to the approved plans, specifications, and change orders? Yes ( ) No ( ) Comments ( )

H. Is all equipment operating and performing satisfactorily?
Yes ( ) No ( ) Comments ( )

I. Did discussion with the operator or others reveal any pieces of equipment that are outstanding or poor? Were there any features in the plant design that hindered or improved plant operation and maintenance? _____
_____
_____
_____

J. Does grantee or resident engineer state that all change orders have been submitted to the State Agency?
Yes ( ) No ( ) Comments ( ) NA ( )

K. Have all special grant conditions been complied with?
Yes ( ) No ( ) Comments ( ) NA ( )

L. Consulting Engineer's Certificate of Completion to Grantee
1. Date: _____
2. By : _____

M. Grantee Acceptance
1. Date of Official acceptance: _____
2. By: Council Resolution ( ) Letter of Acceptance ( )
3. Have all grantee subcontractors been paid in full?
Yes ( ) No ( ) Comments ( )

N. Comments relative to the above:

INSPECTOR'S STATEMENT

(For Both Interim and Final Inspections)

The results of this inspection were discussed with the following on the dates indicated:

| Organization | Name | Date |
|---|---|---|
| Grantee: | _____ | _____ |
| Consulting Engineer: | _____ | _____ |
| EPA: | _____ | _____ |
| Other: | _____ | _____ |

NEW HAMPSHIRE WATER SUPPLY & POLLUTION CONTROL COMMISSION

_____
Inspector Signature

_____
Name and Title

_____
Date

NOTE: An exit meeting or telephone follow-up recommended whenever there are problems.

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APPENDIX W

## INFILTRATION/INFLOW ANALYSIS CHECKLIST

(STAGE B)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the infiltration/inflow analysis.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

APPENDIX W

2. Method of Determining Infiltration/Inflow (I/I):

The method used to determine the I/I is either:

A. Method 1, 2 or 3 as outlined in the "Handbook for Sewer System Evaluation and Rehabilitation" December, 1975 (page 3-83); or (2A)_____

B. The method described in Program Requirements Memorandum (PRM) No. 78-10. (2B)_____

3. Data Included in the I/I Analysis:

A. The estimated flow data at the treatment facility is included. In addition, the flow data from all significant overflows and bypasses and/or flows at key points within the sewer system, is presented. (3A)_____

B. An estimation of the flow from existing population and industrial contributions is presented. (3B)_____

C. A discussion of age, length, type, materials of construction, and known physical condition of the sewer system is presented. (3C)_____

D. A discussion of the groundwater conditions is presented. (3D)_____

E. The calculation of inch miles per mini-system or for the entire system is included. (This must include inch miles of service connections also if PRM 78-10 method is utilized). (3E)_____

4. **Analysis of Data:**

   A. The calculation of peak infiltration in the system or mini-system is included. (4A)_____

   B. The calculation of peak inflow in the system or mini-system (including storm recurrence interval and and intensity) is included. (4B)_____

   C. The alternatives considered for the treatment of the I/I are presented. (4C)_____

   D. An estimate of the amount of infiltration to be removed is given. (4D)_____

   E. An estimate of the amount of inflow to be removed is given. (4E)_____

   F. An estimate of the cost of eliminating the I/I conditions, compared to the costs for transporting and treating the I/I is given. (4F)_____

5. **Results of Analysis:**

   A. The I/I is not excessive. (5A)_____

   B. The I/I is excessive or possibly excessive. The I/I analysis includes a detailed plan for a Sewer System Evaluation Survey and Rehabilitation (SSES & R) which outlines the tasks to be performed in the survey and their estimated costs. (5B)_____

APPENDIX W

6. Sewer System Evaluation Survey:

A. If the SSES & R is to be added to the facilities planning phase (Step 1) of the project, an acceptable grant increase has been recommended. (6A)_____

B. If the SSES & R is to be conducted concurrently with the design phase (Step 2) of the project, the Applicant has established that the project will not be significantly changed by any subsequent rehabilitation program (35.927-5(c) ). An acceptable implementation schedule for the rehabilitation program must be inserted as a special grant condition in the Step 2 grant agreement. (6B)_____

_____ Date

_____ Registered Professional Engineer

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APPENDIX X

SEWER SYSTEM EVALUATION SURVEY

AND

REHABILITATION CHECKLIST

(STAGE B)

Applicant Name: _____

Project Name: _____
Contract Name and Number

EPA Project Number: _____

Date of Receipt: _____

Consulting Engineer: _____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the Sewer System Evaluation Survey.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

APPENDIX X

2. Contents of Sewer System Evaluation Survey:

The survey consists of the following phases:

A. Physical survey. (2A)_____

B. Rainfall simulation. (2B)_____

C. Interim report. (2C)_____

D. Preparatory cleaning. (2D)_____

E. Internal inspection. (2E)_____

If any one or more of the above was omitted, show justification below:

_____

_____

_____

_____

_____

_____

3. Quantity of I/I in Design:

The quantities of allowable infiltration and inflow are identified (those which will not be rehabilitated) and included in the design capacity of the proposed treatment facilities (coordinate with review of design). (3)_____

4. Documentation of Cleaning and Internal Inspections:

In cases where the evaluation survey is extensive, the work carried out is not a part of the grantee's normal operation and maintenance responsibilities (costs for preparatory cleaning and internal TV inspection must be adequately documented and justified by the grantee). (4)_____



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5. Appendices to Evaluation Survey:

The appendices to the evaluation survey must contain additional documentation of the results, including raw data, illustrations, inspection forms, photographs and other information, where appropriate. (5)_____

6. Rehabilitation Program:

The Applicant has presented a proposed rehabilitation program for the sewer system to eliminate all defined excessive I/I (based on the results of the cost-effective analysis). (6)_____

7. The Bidding Specifications:

The bidding specifications for the proposed rehabilitation programs (FRM 78-10 method only), are adequately presented. (7)_____

_____ Date

_____ Registered Professional Engineer

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APPENDIX Y

PLAN OF STUDY CHECKLIST

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the Plan of Study.

Initial/Not Applicable

I. Exceptions:

_____

_____

_____

_____ (1)_____

2. Project Need: The Plan of Study delineates the need for conducting facilities planning from a water quality, public health and environmental viewpoint. (2)_____

3. Planning Area: The planning area is large enough to include all feasible regional treatment schemes and, where individual systems are likely to be cost-effective, take advantage of economies of scale and efficiencies in planning and management (35.917-2(a)(4)). (3)_____

4. Planning Entity: The planning entity is defined. (4)_____

5. Specific Tasks: The following specific tasks to be addressed in the Facilities Plan are delineated in the Plan of Study:

   a) Description of existing and proposed treatment works. (5a)_____

   b) Infiltration/Inflow documentation. (5b)_____

   c) A cost-effective analysis in accordance with Appendix A, Cost-Effectiveness Analysis Guidelines. The evaluation of waste treatment technologies shall include:

      1) Biological or physical-chemical treatment and discharge to receiving waters;

      2) Treatment and reuse;

      3) Land application techniques; and

      4) Subsurface treatment and disposal on a community-wide and individual (35.918) basis.

(5c)_____

APPENDIX Y

d) An evaluation of ultimate disposal of treated wastewater and sludge. (5d)_____

e) An analysis of innovative and alternative treatment processes. (5e)_____

f) An analysis of the primary energy requirements of the treatment facility. (5f)_____

g) An identification and evaluation of effluent discharge limitations. (5g)_____

h) The conducting and summarizing of the public hearings on the project and the soliciting of comments from appropriate agencies. (5h)_____

i) An analysis of potential recreation and open space opportunities. (5i)_____

j) A municipal pretreatment program. (5j)_____

k) An environmental assessment. (5k)_____

6. Costs: The itemized costs of the above specific tasks are presented and are reasonable. (6)_____

7. Schedule: The schedule of completion of the above specific tasks is acceptable. (7)_____

8. General Compliance with Regulations: The Plan of Study satisfies the requirements of 35.917 and 35.920-3(1) and all appropriate EPA guidance. (8)_____

_____
Date

_____
Registered Professional Engineer

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APPENDIX Z

## FACILITIES PLAN REVIEW CHECKLIST

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Application:_____

Date of Receipt:_____

Consulting Engineer:_____

The Executive Director of the New Hampshire Water Supply and Pollution Control Commission (the "Commission") and a registered professional engineer in the employ of the Commission (the "Engineer"), hereby certify to the United States Environmental Protection Agency ("EPA"), that except as specifically noted below, each of the following items which the Engineer has initialed, meets all applicable requirements established by EPA for Facilities Plan approval and we, hereby, recommend that EPA approve such Facilities Plan.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

APPENDIX Z

2. Contents of Facilities Plan: The Facilities Plan meets the following regulatory requirements and/or contains the following information:

a) Description of the treatment works (35.917-1(a) ). The summary of construction cost estimates for the proposed treatment works are presented on the Summary of Costs of Planned Treatment Works Scheduled by Project and Category. (2a)_____

b) Description of the selected complete waste treatment systems(s) of which the proposed treatment works is a part. ( 35.916-1(b) ) (2b)_____

c) Infiltration/Inflow documentation in accordance with Sec. 35.927. See Appendices W & X ( 35.917-1(c) ). (2c)_____

d) A cost-effective analysis prepared in accordance with Appendix A - Cost-Effectiveness Analysis Guidelines. The cost-effective analysis shall include:

1) The relationship of the size and capacity of alternative works to the needs to be served, including reserve capacity ( 35.917-1(d)(1) ). (2d-1)____

2) An evaluation of alternative reduction measures including water conservation ( 35.917-1(d)(2) ). (2d-2)____

3) An evaluation of upgrading existing facilities ( 35.917-1(d)(3) ). (2d-3)____

APPENDIX Z

4) An evaluation of the capability of each alternative to meet applicable effluent limitations (but not less than secondary treatment)(35.917-1(d)(4) ). (2d-4)_____

5) An evaluation of the technologies to provide best practicable waste treatment technology (BPWTT) including ( 35.917-1(d)(5) ):

(I) Biological or physical-chemical treatment and discharge to receiving waters. (2d-5I)_____

(II) Treatment and reuse; (2d-5II)_____

(III) Land application techniques; and (2d-5III)_____

(IV) Subsurface treatment and disposal. This treatment method includes evaluation on a community-wide and individual basis (35.918). In addition, where individual systems are recommended, a comprehensive program for regulation and inspection must be established ( 35.918-1(i) ). (2d-5IV)_____

6) An evaluation of alternative means of ultimate disposal of treated wastewater and sludge ( 35.917-1(d)(6) ). (2d-6)_____

7) Facilities plans initiated after September 30, 1978, contain an analysis of innovative and alternative treatment processes in accordance with Appendix E - Innovative and Alternative Technology Guidelines. ( 35.917-1(d)(8) ) (2d-7)_____

APPENDIX Z

8) Facilities plans initiated after September 30, 1978, contain an analysis of the primary energy requirements for each considered system ( 35.917-1(d)(9) ). (2d-8)_____

e) An identification of effluent discharge limitations ( 35.917-1(e) ). (2e)_____

f) Comments from relevant Federal, State, Interstate, Regional and Local agencies ( 35.917-1(f) ). (2f)_____

g) Public participation documentation including a summary of the public hearing(s) on the proposed project. At the public hearing, the local costs of the proposed project were presented in the format established by Program Requirements Memorandum No. 76-3. ( 35.917-1(g); 35.917-5) ) (2g)_____

h) A statement indicating the Applicants authority and ability to implement the proposed project. This section also includes a discussion of funding from all Local, State and Federal sources. ( 35.917-1(h) ). (2h)_____

i) A statement of compliance with Title VI of the Civil Rights Act of 1964 ( 35.917-1(i) ). (2i)_____

j) Facilities plans initiated after September 30, 1978, contain an analysis of potential recreation and open space opportunities of the proposed treatment works. ( 35.917-1(j) ) (2j)_____

k) A municipal pretreatment program in accordance with 35.907 ( 35.917-1(k) ). (2k)_____

APPENDIX Z

3. Additional Facilities Plan Requirements:

The Facilities Plan contains the necessary information, where applicable, to satisfy the following Program Requirements Memoranda (PRM) and all other PRM's relating to the facilities planning process.

a) PRM No. 75-25, Eligibility of Land Acquisition Costs for Land Treatment Processes under Title II of the Federal Water Pollution Control Act, as amended. (3a)_____

b) PRM No. 75-34, Grants for Treatment and Control of Combined Sewer Overflows and Stormwater Discharges. (3b)_____

c) PRM No. 75-35, Allowable Costs for Construction of Treatment Works that jointly serve Municipalities and Federal Facilities. (3c)_____

d) PRM No. 75-38, Relationship between 201 Facilities Planning and Water Quality Management (WQM) Planning. (3d) _____

e) PRM No. 75-39, Eligibility of Land Acquisition Costs for the Ultimate Disposal of Residues from Wastewater Treatment Processes. (3e)_____

f) PRM No. 76-4, Coordination of Construction Grants Program with EPA-Corps of Engineers Section 404/ Section 10, Permit Programs. (3f)_____

g) PRM No. 77-1, Treatment Works for Recreational Parks, Industrial Parks and Institutions. (3g)_____

h) PRM No. 77-4, Cost Allocations for Multiple Purpose Projects. (3h)_____

APPENDIX Z

i) PRM No. 77-5, Grant Eligibility of Land Acquisition by Leasehold or Easements for Use in Land Treatment and Ultimate Disposal of Residues. (3i)_____

j) PRM No. 78-1, Erosion and Sedimentation Control in the Construction Grants Program. (3j)_____

k) PRM No. 78-4, Grant Eligibility of Land Acquired for Storage in Land Treatment Systems. (3k)_____

l) PRM No. 78-9, Funding of Sewage Collection System Projects. (3l)_____

4. The environmental report has been prepared on this project. (4)_____

5. EPA has issued the negative declaration or the final EIS has been approved. (5)_____

6. General Compliance with Regulations: The Facilities Plan satisfies the requirements of 35.917, incorporates all the appropriate EPA guidance and represents sound engineering and environmental judgement. (6)_____

NEW HAMPSHIRE WATER SUPPLY &
POLLUTION CONTROL COMMISSION

_____ BY _____
Date Executive Director

_____
Registered Professional Engineer

(Stamp or Seal of Registered Engineer)

Revision 10/6/78

APPENDIX AA

## PLAN OF OPERATION CHECKLIST

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the (Preliminary)(Final) Plan of Operation.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

APPENDIX AA

2. Preliminary Plan of Operation: The preliminary plan of operation submitted with the plans and specifications satisfies the requirements of 40 CFR 35.935-12 and PRM # 77-3 for completeness, technical and administrative adequacy, considering the size of the project.

(2)_____

3. Final Plan of Operation: The final plan of operation submitted prior to the 50 percent payment of Step 3 construction works satisfies the requirements of 40 CFR 35.935-12 and PRM # 77-3 for completeness, technical and administrative adequacy, considering the size of the project. (3)_____

4. Grant Amendments: If necessary, any changes to the project including change orders, engineering agreement amendments and grant amendments resulting from the plan of operation have been approved or recommended. (4)_____

5. Payment Notification: The appropriate NH WS & PCC and EPA personnel have been notified that the subject project satisfies the 50 percent payment limitation for approval of the final plan of operation. (5)_____

_____
Date

_____
Registered Professional Engineer

Revision 10/6/78

APPENDIX BB

VALUE ENGINEERING ANALYSIS CHECKLIST*

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of the (Preliminary)(Final) Value Engineering Report.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____(1)_____

* Mandatory for projects in which the projected total Step 3 grant eligible construction cost for treatment facilities is $10 million or more.

APPENDIX BB

2. Value Engineering Analysis: The Value Engineering (VE) analysis is consistent with the proposal approved with the Step 2 Grant Award.

(2)_____

3. Preliminary Report: The VE Analysis and Preliminary Report have been accomplished and prepared in accordance with the appropriate Sections of 40 CFR Part 35, PRM No. 75-36, the Value Engineering Workbook, EPA, July 1976 and any other pertinent documents.

(3)_____

4. Resolution of Differences: Any discrepancies arising between the VE Team's recommendations (Preliminary Report) and the Grantee's implementation have been resolved.

(4)_____

5. Value Engineering Implementation: The VE recommendations contained in the Preliminary Report have been implemented to the maximum extent feasible.

(5)_____

6. Grant Amendment: If appropriate, a grant amendment has been recommended.

(6)_____

7. Final Report: The Final VE Report (including final implementation) is in compliance with the appropriate Sections of 40 CFR Part 35, PRM No. 75-36, the Value Engineering Workbook, EPA, July 1976 and any other pertinent documents.

(7)_____

_____
Date

_____
Registered Professional Engineer

Revision 10/6/78

APPENDIX CC

## USER CHARGE REVIEW CHECKLIST

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of a User Charge System.

Initial/Not Applicable

I. Exceptions:

_____

_____

_____

_____(1)_____

II. Review of Checklist Items: The following checklist has been completed and indicates compliance with all applicable requirements. (2)_____

APPENDIX CC

I. GENERAL REQUIREMENTS, ALL USER CHARGE SYSTEMS: YES/NO

A. Are initial O&M charges sufficient to provide adequate funds consistent with the level and type of service provided? _____

B. Does the system provide for at least biannual review and adjustment to provide for:

(1) Proportional distribution of costs among users and user classes. _____

(2) Sufficient revenue to provide adequate operations, maintenance and replacement funds. _____

(3) Application of excess revenues from a particular class of users to that class in future years. _____

C. Does the User Charge System provide for assessment of increased costs attributable to toxic wastes to the source of such wastes? _____

D. Does the system provide for assessment of costs associated with extraneous flows in an acceptable manner? _____

Method Utilized:

_____

_____

_____

_____



63-935 O—80——39

YES/NO

E. Does the User Charge System provide for notification to payees of the cost of waste treatment services? _____

F. (1) If the grantee provides waste treatment services to more than one political jurisdiction, has provision been made by the grantee to establish acceptable User Charge Systems in all jurisdictions? _____

(2) Do intermunicipal agreements reflect this requirement? _____

G. (1) Are there agreements between the grantee and any user which are inconsistent with EPA's user charge regulations? _____

(2) If so, has the grantee been notified and has the grantee acknowledged that said agreements cannot be part of the User Charge System? _____

II. SPECIFIC REQUIREMENTS, USER CHARGE SYSTEMS BASED ON ACTUAL USE:

A. Does the User Charge System distribute the costs of operation and maintenance in proportion to actual use of the system, including all factors influencing the costs of waste treatment services? _____

B. What type of distribution formulation is utilized? (Ref: EPA User Charge Guidelines) Check One:

(1) Flow Only:

Are all wastes of approximately the same strength? _____

YES/NO

(2) Surcharge:

Are appropriate surcharges assessed for pollutant loadings? _____

(3) Quantity/Quality _____

(4) Other (Explain) _____

_____

_____

_____

_____

III. SPECIFIC REQUIREMENTS, USER CHARGE SYSTEMS BASED IN PART ON AD VALOREM TAXATION:

A. Has the grantee previously obtained EPA approval of a User Charge System based on actual use? _____

B. Has the grantee continued to utilize Ad Valorem taxation, since December 27, 1977 for all or part of O&M costs? _____

C. Is the grantee's system dedicated within the content of 40 CFR 35.929-1(b)(3).

NOTE: Specific documentation in this regard must be made part of this review document. _____

D. Has the grantee's system identified as a minimum the three classes of users set forth in 35.929-1 (b)(4)? _____

E. Has the grantee made provision for evaluating the volume, strength and other characteristics of individual user's waste flows for the purpose of classifying such users? _____

APPENDIX C

YES/NO

F. Has the grantee's system made provision for the proportional distribution of O&M costs to the various classes of users? _____

G. Has the grantee established charges based on actual use for the industrial and tax exempt classes of users? _____

H. If industrial users of the treatment works are assessed Ad Valorem taxes for O&M, are the following criteria met:

(1) Is the rate uniformly applied to all members of the class? _____

(2) Is the amount so assessed specifically designated for O&M? _____

(3) Has a system of surcharges and rebates been established, such, that each user within the class pays a total charge equal to its share of O&M based on actual use? _____

_____ Date

_____ Registered Professional Engineer

Revision 10/6/78

APPENDIX DD

INDUSTRIAL COST RECOVERY REVIEW CHECKLIST

(STAGE C)

Applicant Name:_____

Project Name:_____

EPA Project Number:_____

Date of Receipt:_____

Consulting Engineer:_____

The undersigned, a registered professional engineer in the employ of the New Hampshire Water Supply & Pollution Control Commission, hereby certifies to the United States Environmental Protection Agency ("EPA") that, except as specifically noted below, each of the following items, which the undersigned has initialed, meets all applicable requirements established by EPA for the approval of an Industrial Cost Recovery System.

Initial/Not Applicable

1. Exceptions:

_____

_____

_____

_____ (1)_____

2. Review Checklist Items: The following checklist has been completed and indicates compliance with all applicable requirements. (2)_____

APPENDIX DD

3. The attached document (from EPA, Federal Guidelines, Industrial Cost Recovery Systems, MCD-43) entitled Description of Industrial Cost Recovery System has been adequately completed with the exception of item E. (3)_____

4. Industrial Cost Recovery is not applicable:

REASON:_____

_____

_____

_____ (4)_____

_____ Date

_____ Registered Professional Engineer

## DESCRIPTION OF INDUSTRIAL COST RECOVERY SYSTEM

EPA Grant Identification Number:_____

Name of Grantee:_____

Grantee's Legal Address:_____

Name of Facility (if applicable):_____

Brief Description of the Project:_____

_____

_____

(a) Total Design Capacity:

Flow = _____

BOD = _____

SS = _____

Other (Itemize) =

_____

_____

Total Initial Industrial Contribution:

Flow = _____

BOD = _____

SS = _____

Other (Itemize) =

_____

_____

(b) Total cost of construction of the treatment works based upon the best available data or estimates including Step 1 and Step 2 costs, and the total amount of construction grants to be received based upon such estimates.

Total Cost $_____

as of (date)_____

Total grant funds_____

as of (date)_____

(c) Furnish industrial user cost allocations similar to Table 1 and Table 2 of Section 9 of these Guidelines (40 CFR 35.928-1(d), 40 CFR 35.925-12).

(d) Industrial Cost Recovery Period (40 CFR 35.905-7): _____Years
Initial date: _____
Useful life: _____Years (if different from ICR period)
Did the grant fund the construction of elements of the total treatment works which will be placed in operation at different times? _____yes___no
If "yes", attach a listing of the industrial cost recovery period for each element so constructed and placed in operation.

(e) Cite the ordinances, authorities or contractual agreements which establish the basis for the ICR system (40 CFR 35.928).

_____

_____

(f) Describe the method used for defining industrial users for the purpose of allocating costs (40 CFR 35.905-8).

_____

_____

(g) Does the proposed ICR system make provision for an appeal procedure in accordance with Section 5 of these Guidelines? _____yes_____no
Briefly describe the appeal procedure and cite legal authorities.

_____

_____

(h) Does the proposed ICR system make provision for adding new industrial users to the system in accordance with Section 10 of these Guidelines?
_____yes _____no

(i) Were any grant costs excluded from the ICR system? _____yes _____no
If "yes", attach a description of the excluded portion and give the basis for such exclusion (Guidelines Section 8).

(j) Were any industrial users excluded from the industrial cost recovery system? _____yes _____no
If "yes", attach a list of the industrial users so excluded and the basis for each such exclusion (40 CFR 35.905-8(e), Guidelines Section 8).

(k) Has any portion of the treatment works' reserve capacity been set aside for use by specific industrial users through formal written agreements? _____yes _____no
Informal agreements? _____yes _____no
If "yes", attach a list of such agreements (formal and informal) and the capacity reserved for each industrial user (40 CFR 35.928-1(g), Guidelines Section 7).

(l) Will industrial users be required to begin paying ICR within one year of the date of initiation of service of the grant-assisted facility (40 CFR 35.928-1(c), Guidelines Section 16)? _____yes _____no
If "no", attach explanation.

(m) Will the proposed ICR system affect any ICR system developed under a previous grant? _____yes _____no
If "yes", attach explanation.

(n) Describe the method to be used in classifying industries into major and minor categories for monitoring purposes. Include, in the description, the nature and level of monitoring to be required and the manner in which monitoring will be conducted and reported. Describe the method by which an industrial users ICR payment will be adjusted with changes in wastewater characteristics (40 CFR 35.928-1(e), Guidelines Section 11).

_____

_____

(o) Describe the method by which an industrial user's ICR payment be adjusted if the treatment works is upgraded or expanded in the future (40 CFR 35.928-1(f)).

_____

_____

(p) Describe proposed procedures for funds management and investment.

_____

_____

APPENDIX EE

(reserved)

Appendix YY
Page 1

The State of New Hampshire

COMMISSIONERS
ROBERT J. HILL, Chairman
HERBERT A. FINCHER, Vice Chairman
DONALD C. CALDERWOOD, P. E.
CHARLES E. BARRY
RICHARD M. FLYNN
ELMER L. JOHNSON
GEORGE M. McGEE, SR.
JAMES E. MINNOCH
MAYNARD H. MIRES, M. D., M. P. H.
WAYNE L. PATENAUDE
ROBERT M. SHEW
JAMES VAROTSIS
PAUL T. DOHERTY

Water Supply and Pollution Control Commission
Prescott Park
P.O. Box 95—105 Loudon Road
Concord 03301

STAFF
WILLIAM A. HEALY, P. E.
Executive Director
RICHARD P. GROSSMAN, P. E.
Deputy Executive Director
and Chief Engineer
LINDSAY M. COLLINS, P. E.
Director of
Municipal Services

September 13, 1978

Mr. Lawrence F. Sheehan, Jr.,Chief
Engineering Section, ME,NH,VT
Municipal Facilities Branch
Enviromental Protection Agency
JFK Federal Building
Boston, Massachusetts 02203

Dear Mr. Sheehan:

The purpose of this letter is to outline the accounting and timekeeping system to be used by the New Hampshire Water Supply & Pollution Control Commission to identify costs incurred under the proposed Construction Management Administration Grant Agreement. This system will provide the means to maintain effective control over all CMA costs.

DIRECT LABOR

Direct labor will be accounted for using a daily time records for all eligible CMA related personnel.

FRINGE BENEFITS

Fringe benefits will be added to the direct labor costs on an individual basis.

CURRENT EXPENSE

Rental costs will be charged on a per capita basis using the current rate of $5.50 per square foot times 200 square feet($1,100). Other current expense items (telephone,postage, supplies, etc.) will be traced directly to CMA grant eligible activities.

EQUIPMENT

The initial purchase of equipment will be for office furniture, typewriter, and calculators for the new personnel to be hired with CMA funds.

Mr. Lawrence F. Sheehan, Jr. Chief (2) September 13, 1978

TRAVEL

Travel expenses will be charged directly to the individual doing the CMA eligible work.

EDUCATION EXPENSES

These costs will be incurred directly for new CMA employees. Costs will include tuition reimbursement and other expenses necessary for training new personnel.

CONTRACTUAL

Personnel service contracts for specific CMA delegated tasks will be billed directly to CMA.

INDIRECT COSTS

A revised indirect cost rate will be developed during the first year of the grant period. We are uncertain at this time as to when certain positions will be filled, and therefore, we can not break down the direct and indirect costs.

Any additional requirements on the part of EPA will be incorporated into our accounting system. Unforseen furure developments may require additional changes in the system.

Sincerely,

Kenneth R. Morrissey
Business Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: September 28, 1978

SUBJECT: New Hampshire Accounting System (Sec. 205(g))

FROM: Arthur J. Pavluvcik, Acting Regional Audit Manager
Office of Audit

TO: Lawrence F. Sheehan, Jr., Chief
Engineering Section, ME, NH, VT

The NHWS&PCC proposed accounting system for the Section 205(g) grant as submitted in their September 13, 1978 letter, and as discussed on September 8, 1978 has been reviewed and appears to be adequate to protect the government's interest.

It is recommended that the grantee review 40 CFR 30.800, 40 CFR 30.805 and 40 CFR 30.810 as well as Federal Management Circular 74-7 for guidance relating to financial and administrative requirements for grants to State governments.

It is also recommended that the grantee review the results of previous audits performed of the NHWS&PCC and institute any recommendations provided.

If we can be of further assistance, please advise.

EPA Form 1320-6 (Rev. 3-76)

The State of New Hampshire

COMMISSIONERS
ROBERT J. HILL, Chairman
HERBERT A. FINCHER, Vice Chairman
DONALD C. CALDERWOOD, P. E.
CHARLES E. BARRY
RICHARD M. FLYNN
ELMER L. JOHNSON
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WAYNE L. PATENAUDE
ROBERT W. SNOW
JAMES VANOTSIS
PAUL T. DOHERTY

Water Supply and Pollution Control Commission
Prescott Park
P. O. Box 95—105 Loudon Road
Concord 03301

STAFF
WILLIAM A. HEALY, P. E.
Executive Director
RICHARD F. GROSSMAN, P. E.
Deputy Executive Director and Chief Engineer
LINDSAY M. COLLINS, P. E.
Director of Municipal Services

September 29, 1978

Mr. Lawrence F. Sheehan, Jr., Chief
Engineering Section - ME, NH, VT
Municipal Facilities Branch
EPA, Region I
J. F. Kennedy Federal Building
Boston, MA 02203

SUBJECT: DELEGATION AGREEMENT

Dear Mr. Sheehan:

We have further examined the proposed accounting system as set forth in my letter of September 13, 1978, to your office. Discussions in-house and with other State Agencies presently preparing applications for 205(g) funding, indicate that they also share many of our concerns with regard to the problems of documenting 100% time on the CMAG functions by CMAG funded personnel.

We suggest the following approach be used to further clarify the proposed accounting system:

1) Time sheets for all employees which have, or will have, Cleveland-Wright associated duties will be maintained by the Commission.

2) A quarterly summary of personnel costs will be made.

Since the Commission will have staff positions funded from State resources over and above those supported by the CMAG program, it is expected that the quarterly summary of costs referred to in the Agreement, will show total personnel costs in excess of amounts budgeted from CMAG funds. Hence, it is proposed that the Commission would be reimbursed for personnel costs in accord with the CMAG budget. For example, the quarterly summary might show that the Commission had expended $120,000 on personnel costs, while the CMAG budget reflected personnel costs for that quarter of $100,000. The Commission would then be reimbursed for the $100,000 personnel figure reflected in the budget.

Our review of the proposed construction grants administration program indicates that should the above procedure not be allowed by EPA, the State could well find itself in a position of being unable to pay professional personnel. The result, of course, would be difficulty in hiring qualified personnel and in maintaining morale on the staff. The procedure outlined above will enable the State to offset any time spent by CMAG-funded personnel on non-CMAG work.

We trust that the above analysis will provide you with an insight to the real problems which will be faced by this Agency. The system proposed will provide for a proper accounting of time spent on CMAG functions, and will demonstrate that the Commission is, in fact, providing a "match" for the CMAG program.

We therefore request that Item 24 of the Delegation Agreement include wording which will enable this Agency to utilize the above-described accounting procedure which will more accurately reflect the total effort expended on administration of the construction grants program.

Very truly yours,

Kenneth R. Morrissey
Business Administrator

KRM:caj

cc: Robert A. Cruess, P.E.
Robert C. Thompson, Esq.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



DATE OCT 3 1978

SUBJECT New Hampshire Accounting System (Sect. 205(g))

FROM Lawrence F. Sheehan, Jr., Chief
Engineering Section, ME, NH, VT

TO Project Files

On Monday October 2, 1978, Robert Cruess (NH WS & PCC), Arthur Pavluvcik, (Acting Regional Audit Manager) and the writer met at the Office of Audit in Boston to review the proposed accounting system by which New Hampshire will be reimbursed for 205(g) activity.

The proposed system was explained in detail by Mr. Cruess and supplemented by letters from Mr. Morrissey, Commission business administrator dated September 13 and September 29, 1978. Mr. Pavluvcik agreed with the system proposed by the State but recommended weekly time sheets be completed by those persons involved in 205(g) activity.

cc: Robert Thompson
Arthur Pavluvcik

APPENDIX 5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 27 1976

THE ADMINISTRATOR

Dear Mr. Healy:

I am pleased to transmit to you the proposed Certification Agreement between the Environmental Protection Agency (EPA) and the New Hampshire Water Supply and Pollution Control Commission, executed on behalf of EPA by Mr. Alvin L. Alm, Assistant Administrator for Planning and Management.

I am aware that the State of New Hampshire several years ago enacted legislation and instituted procedures to protect the Federal, State and local interest in consulting engineering agreements for water pollution control facilities. While the procedures in use in New Hampshire are not the same as those required by the recently promulgated EPA regulations, we have determined that, with certain modifications, they do provide the same protections as do those regulations. As you know, New Hampshire is the first State to request certification of any part of the State's procurement system under the provisions of 40 CFR 35.936-21(b). I am extremely pleased that we have been able to sign this Certification Agreement and commend you on the steps which the State of New Hampshire has already taken in this direction.

Please execute all three enclosed copies of the Certification Agreement and return two to Mr. Alm at your earliest convenience. Any modifications which may be found to be necessary will be executed by the Assistant Administrator for Planning and Management.

Sincerely yours,

Russell E. Train

Russell E. Train

Mr. William A. Healy
Executive Director
Water Supply and Pollution Control Commission
P.O. Box 95 - 105 Loudon Road
Concord, New Hampshire 00301

Enclosures

RECEIVED
MAR 5 1976
N. H. WATER SUPPLY & POLLUTION CONTROL COMMISSION

RECEIVED
MAR 5 1976
N. H. WATER SUPPLY & POLLUTION CONTROL COMMISSION

CERTIFICATION AGREEMENT
REGARDING THE PROCUREMENT OF ENGINEERING SERVICES
IN THE WASTE TREATMENT CONSTRUCTION GRANTS PROGRAM
BETWEEN
THE NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION
AND THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

I. Assistant Administrator Determination and Certification

The Assistant Administrator for Planning and Management (hereinafter, the Assistant Administrator) of the Environmental Protection Agency (hereinafter, EPA), having reviewed the present system employed by the New Hampshire Water Supply and Pollution Control Commission (hereinafter, the Commission) for procurement of engineering services for construction of treatment works under Title II of P.L. 92-500, and having reviewed certain modifications to that system proposed by the Commission, does hereby determine, subject to the conditions identified in paragraph III below, that the New Hampshire statutes and ensuing procedures operate to provide the same protections as do EPA regulations at 40 CFR 35.937 through 35.937-10, and in consideration of the following assurances and conditions does hereby approve and certify that system for use in place of the requirements of those sections.

II. State Assurance

The Commission does hereby unqualifiedly assure the Assistant Administrator that it, in conducting procurements under this Certification Agreement, intends to and will execute such responsibilities in conformance with the spirit and substance of all Federal laws and regulations pertaining to such procurements, now in effect, or that may come into effect during the life of this Certification Agreement.

III. Conditions

The Commission agrees that in addition to the evidence of acceptability of its system submitted to EPA to date and attached hereto and made part of this Certification Agreement, the Commission shall include the following actions in its system prior to the award of any subagreement for engineering services under this Certification Agreement.

1. The Commission agrees to include the following solicitation statement in its "Rules and Regulations for the Prequalification of Consulting Engineers" and in each request for proposal submitted to a candidate for negotiation.

Any contract awarded under this request for (qualifications/professional proposals) is expected to be funded in part by a grant from the United States Environmental Protection Agency. This procurement will be subject to regulations contained in 40 CFR 35.936, 35.937-12 and 35.939. Neither the United States nor the United States Environmental Protection Agency is nor will be a party to this request for (qualifications/professional proposals) or any resulting contract.

2. The Commission agrees to include in its procedures the right of the Commission or of EPA to perform a preaward audit or cost analysis of any proposal submitted for negotiation.

3. The Commission agrees to require the submission of a properly completed and signed EPA Form 5700-41 from each candidate selected for negotiation and shall utilize that data in the negotiation process.

4. The Commission agrees to require each engineer awarded a contract to have an accounting system which accounts for costs in accordance with generally accepted accounting principles. This system shall provide for the identification, accumulation and segregation of allowable and unallowable project costs among projects. The engineer must propose and account for project costs in a manner consistent with his normal accounting procedures.

5. The Commission agrees to include in each contract for professional services the standard contract clauses prescribed by 40 CFR Part 35 Subpart E Appendix C-1, as amended by the Commission's letter to the Assistant Administrator of February 20, 1976, attached hereto, and as further amended as follows: in clause 1 paragraph b, insert "35.937-12" following the reference to "35.936."

6. Inasmuch as the current standard contract forms utilized by the Commission meet the definition of a fixed price contract found in 40 CFR 35.937-1(c), the Commission agrees that it will also develop a cost reimbursement type of contract acceptable under the provisions of 40 CFR 35.937-1(b) for use where the scope of work cannot be adequately defined at the time of contract execution, thereby making the fixed price type of contract inappropriate for use.

7. The Commission agrees to delete from its standard contract form the fifteen percent fixed surcharge to be paid to engineers over and above the actual price of subcontracts entered into under the engineering agreement. The extent of subcontracting, however, will continue to be included in the agreement.

8. The Commission agrees to submit evidence of its compliance with the conditions of this paragraph III for EPA review and approval within sixty days from the date of its signature on this Certification Agreement.

IV. Terms of Agreement

This Certification Agreement shall take effect upon execution by both parties and shall remain in effect ~~until September 30, 1978,~~ unless terminated ~~at some earlier date~~ by either party or by mutual agreement; Provided, however, that the party initiating such termination shall provide thirty days written notice to the other party.

V. Review

Pursuant to the authority of the Regional Administrator in 40 CFR 35.935-2(a) to cause appropriate review of grantee procurement methods to be made, the Regional Administrator shall annually conduct a review of the procurements of the Commission under this Certification Agreement. Such review may include but is not limited to the conduct of cost analysis of selected contracts for engineering services, preaward audits of firms selected for negotiation, or other such procedures.

VI. This Certification Agreement may be modified through written amendment to this agreement signed by the signatories hereto or their successors.

Date: _____ By: _____
Assistant Administrator
for Planning and Management
Environmental Protection Agency

Date: 3/5/76 By: _____
Authorized Representative*
New Hampshire Water Supply and Pollution
Control Commission

* Signature should be supported by appropriate document.

APPENDIX 6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

December 28, 1977

DEC 30 1977

William A. Healy, Executive Director
N. H. Water Supply & Pollution Control
Commission
P. O. Box 95
Concord, New Hampshire 03301

Dear Mr. Healy:

I am returning, herewith, two copies of the agreement dated December 23, 1977 between EPA and your Commission providing for coordination of construction grant activities in the State of New Hampshire which I have executed.

The agreement provides in paragraph 8 that EPA will supply appropriate checklists or forms to cover certification documents under that paragraph. Due to the passage of the recent amendments to the Federal Water Pollution Control Act, it is my view that these checklists or forms may provide the basis for approving New Hampshire as eligible for funding under the Cleveland-Wright provision. Therefore, we will be developing these forms with that thought in mind and will be forwarding them to you in early January.

I am pleased that we have had the opportunity to enter into this agreement and I shall look forward to working with you in implementing it.

Sincerely yours,

William R. Adams, Jr.
Regional Administrator

RECEIVED
DEC 30 1977
N. H. WATER SUPPLY & POLLUTION CONTROL COMMISSION

AGREEMENT

Made this 23rd day of December, 19 77by and between William Healy, as Executive Director (the "Executive Director") of the New Hampshire Water Supply and Pollution Control Commission (the "Commission") and William R. Adams, Jr., as Regional Administrator (the "Regional Administrator") of the Environmental Protection Agency, Region I ("EPA"). Nothing contained in this Agreement shall be construed to modify, abrogate or rescind authority and responsibilities conferred upon EPA by the Federal Water Pollution Control Act (FWPCA) and subsequent amendments thereto or duties imposed upon the Commission by State statutes.

WHEREAS, the Commission and EPA desire to eliminate duplication of their efforts in the review of documents associated with funding construction of sewage treatment facilities, namely (a) construction drawings and specifications, (b) change orders and addenda, (c) operation and maintenance manuals submitted in connection with the construction grant program (the "Grant Program") being administered pursuant to the FWPCA, (d) inspection of the construction of pollution control facilities being constructed with Federal financial assistance under the FWPCA; and (e) certain other related functions hereinafter described in paragraph 8; and

WHEREAS, the Regional Administrator is authorized pursuant to 40 C.F.R. Section 35.912 and Environmental Protection Agency Order 1270.3 to execute a written agreement with the Commission providing

for acceptance of certifications by the Commission of the technical and/or administrative adequacy of such documents in lieu of detailed EPA review;

NOW, THEREFORE, the parties hereto agree as follows:

1. The Commission agrees to examine in detail all construction drawings and specifications, change orders and addenda, operation and maintenance manuals, and documents relating to paragraph 8 (the "Documents") submitted to the Commission in connection with the Grant Program so as to determine whether or not such Documents meet all applicable requirements set forth in Exhibit A (in the case of construction drawings and specifications) including but not limited to biddability and constructability, Exhibit B (in the case of change orders and addenda) and Exhibit C (in the case of operation and maintenance manuals). EPA may from time to time make changes in any such Exhibit by revision or supplement. As used in this Agreement, the terms "change orders and addenda" shall refer to any proposed amendment to a contract or proposed contract for construction of wastewater treatment facilities.

2. Each Document transmitted to EPA for formal approval shall be accompanied by a certificate in the form attached hereto as Exhibit D, duly executed by the Executive Director or his delegate and the registered professional engineer who has supervised the review of such Document. As set forth in said Exhibit D, such certificate shall state that based upon a review supervised by the registered professional engineer such Document complies with all of the applicable requirements set forth in this Agreement, except for any significant exceptions thereto or deviations therefrom which shall be duly noted. Wherever a

significant exception or deviation has been noted, such exception or deviation shall be described briefly and appropriate concurrence obtained therefore from EPA. In lieu of a separate certification document, the Commission may imprint its certification on a Document by means of a stamp in the form of Exhibit E. Appropriate documentation of the reasons for such exception or deviation shall accompany such certification. The Commission shall, in addition, complete, duly execute and transmit any EPA-prescribed design summary furnished for such purpose.

3. When it is necessary, desirable or appropriate to conduct a pre-design, design, or preconstruction conference in order to assure that a project will meet all applicable criteria including that set forth in any Exhibit, the Commission shall conduct such a conference to which the applicant, its consultants and EPA shall be invited.

4. EPA shall make a brief review of all Documents submitted to EPA pursuant to this Agreement. EPA shall review all deviations and exceptions. The Regional Administrator shall, from time to time, conduct a spot-check of randomly selected documents. The Commission shall cooperate fully in such instances and shall provide EPA with available back-up material and/or consultation as may be reasonably required in order for EPA to conduct its own review. In the case of change orders and addenda, the Regional Administrator shall retain responsibility for final determination as to any change in the scope or cost of a grant project involving a cost in excess of five percent of the amount of the project cost determined at the time of original approval of the award of contracts by EPA.

5. Except as otherwise provided in the Agreement, where the Commission is performing delegated functions on EPA grant assisted projects, EPA shall accept the Commission's certification under paragraph 2 above in lieu of conducting its own detailed review of the Documents covered by such certification.

6. The Regional Administrator and the Executive Director, or their designees, shall meet periodically at a mutually convenient time and place to discuss the aspects of the Grant Program involved in this Agreement.

7. It is understood that each certification by the Commission shall not be construed to constitute final EPA approval of the Document. The Regional Administrator shall notify a grant applicant or recipient in writing when he has formally approved any Document.

8. With respect to the delegation of authority regarding construction of pollution control facilities, it is understood that the Commission shall fulfill Step III responsibilities by submitting to EPA a certification, as provided in Exhibit D, along with an appropriate checklist or form (to be supplied by EPA) which accompanies the required documents and indicates compliance with the applicable regulations and provisions of law with regard to the following areas: certifying of adequacy of bidding procedures and construction contract for award; providing technical assistance to EPA in the resolution of protests arising during and after the solicitation of construction contract bids; assuring compliance with Sections 402 and 404 of P.L. 92-500; certifying to adequacy of force account work; certifying contracts for sewer rehabilitation work; conducting on-site

inspections and assist EPA at the close out inspection; providing resident oversight review for all projects; recommending approval of requests for payments. NOTE: Certification as used above means a thorough and professional review of the activity to a standard at least as high as that normally expected of professional engineers. The Commission assumes no financial responsibility in this regard. Also, as it may be reasonably necessary to functions delegated, responding to public inquiries and entering status and tracking data into and otherwise providing data for EPA reporting systems. Other functions may be added by mutual consent in more detailed agreements.

9. So long as the duties delegated by EPA to the Commission are performed in accordance with the terms of the Agreement, the delegation of authority hereunder shall remain in full force and effect. Without formal revocation of this Agreement by EPA, EPA agrees not to delegate the authority conferred on the Commission herein to any other agency.

10. The Commission shall keep and maintain, for three years (or for such further period of time as shall subsequently be required by EPA pursuant to 40 C.F.R. 30.805 or otherwise) following final payment by EPA of grant funds allocated to any particular project, records of all actions taken in connection with its review of any Document relating to such project. The Commission shall afford to EPA, the U.S. General Accounting Office, and other concerned Federal agencies, access to such records at all reasonable times.

11. The initial period of this Agreement will be three years beginning the date hereof and thereafter may be renewed annually. EPA and the Commission will consult in advance of termination of all or any

part of the Agreement and will, insofar as possible, fix a termination date sufficiently in advance so that both parties will have a reasonable period of time to make personnel and other adjustments in their operations in light of such termination. For the purpose of this Agreement, a period of one year will be deemed to be a reasonable period of time.

William A. Healy, P.E.
Executive Director
New Hampshire Water Supply &
Pollution Control Commission

William R. Adams, Jr.
Regional Administrator
Environmental Protection Agency
Region I

EXHIBIT A

REQUIREMENTS FOR ADMINISTRATIVE
AND/OR TECHNICAL ADEQUACY OF
CONSTRUCTION DRAWINGS AND SPECIFICATIONS

1. Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 et. seq.)

2. Title 40, Code of Federal Regulations, Subpart E.

3. Federal Guidelines: Design, Operation and Maintenance of Waste Water Treatment Facilities, U.S. Department of the Interior, Federal Water Quality Administration (September, 1970 ed.), as supplemented by Criteria for Mechanical, Electric, and Fluid System and Component Reliability (Technical Bulletin EPA 430-99-74-001).

4. Guides for the Design of Wastewater Treatment Works prepared by Technical Advisory Board of New England Interstate Water Pollution Control Commission. (TR-16, June, 1971 ed.)

5. Standards of Design for Sewerage and Waste Treatment Systems by New Hampshire Water Supply and Pollution Control Commission (January, 1975 ed.)

6. All supplements, revisions and amendments to the above.

EXHIBIT B

REQUIREMENTS FOR ADMINISTRATIVE
AND/OR TECHNICAL ADEQUACY OF
CHANGE ORDERS AND ADDENDA

1. Costs involved must, in the judgement of the certifying parties, be reasonable.

2. All changes in construction drawings and specifications must comply with all requirements set forth in Exhibit A to this Agreement.

EXHIBIT C

REQUIREMENTS FOR ADMINISTRATIVE
AND/OR TECHNICAL ADEQUACY OF
OPERATION AND MAINTENANCE MANUALS

1. Title 40, Code of Federal Regulations, Subpart E.

2. Federal Guidelines on Design, Operation and Maintenance of Wastewater Treatment Facilities.

3. EPA Manuals:

   a. Considerations for the Preparation of Operation and Maintenance Manuals, U.S. Environmental Protection Agency, Office of Water Program Operations (EPA-430/9-74-001)

   b. Estimated Staffing for Municipal Wastewater Treatment Facilities, U.S. Environmental Protection Agency, Office of Water Program Operations (March, 1973 ed.)

   c. Estimated Laboratory Needs for Municipal Wastewater Treatment Facilities, U.S. Environmental Protection Agency, Office of Water Program Operations (June, 1973 ed.)

   d. Maintenance Management Systems for Municipal Wastewater Facilities, U.S. Environmental Protection Agency, Office of Water Program Operations (October, 1973 ed.)

   e. All supplements, revisions and amendments to the above.

EXHIBIT D

STATE OF NEW HAMPSHIRE

WATER SUPPLY AND POLLUTION CONTROL COMMISSION

We, the undersigned, being, respectively, the Executive Director of the New Hampshire Water Supply and Pollution Control Commission, or his delegate, and the registered professional engineer who has supervised the review of the below-mentioned documents, hereby certify that, based upon a detailed review, the documents being transmitted herewith consisting of:

_____
(Describe)

_____

_____

comply in all respects with the requirements as to administrative and/or technical adequacy set forth in an Agreement dated
by and between the Executive Director and the Regional Administrator, Environmental Protection Agency, Region I, with the following exceptions:

Exceptions (If none, state "None". Attach additional documents where appropriate):

_____ Date

_____ Executive Director
New Hampshire Water Supply and
Pollution Control Commission

By_____

_____ Date

_____ Registered Professional Engineer

[Stamp or Seal of Registered Professional Engineer]

EXHIBIT E

FORM OF CERTIFICATION
TO BE
AFFIXED BY STAMP

CERTIFIED

in compliance with the Agreement dated
between the N.H. Water Supply and Pollution Control Commission and the U.S. Environmental Protection Agency.

☐ No exception or deviation

☐ Exception or deviation noted
on accompanying documents

(P.E. Stamp)

Supervising Registered Professional Engineer

Executive Director, N.H. Water Supply and
Pollution Control Commission

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 5 1979

RECEIVED JUL 9 1979 N.H. WATER SUPPLY & POLLUTION CONTROL COMMISSION

MEMORANDUM

OFFICE OF WATER AND HAZARDOUS MATERIALS

Subject: Alternative Strategies for Funding Multiple-Purpose Projects

From: Thomas C. Jorling, Assistant Administrator
for Water and Waste Management (WH 556)

Thomas C. Jorling

To: Regional Administrators
State Water Pollution Control Program Administrators
Other Interested Parties

For several months EPA has been studying the extent to which construction grant funds could be spent to accomplish purposes other than water pollution control. Recognizing that the Clean Water Act encourages integrated environmental management facilities, available federal funds are limited, and must be effectively spent to address water pollution control problems. Even so, water pollution control facilities, in addition to wastewater treatment, can frequently be designed to accomplish solid waste management, energy production, water supply, hazardous waste disposal, or other environmentally beneficial purposes more cheaply than separate facilities.

We have examined short- and long-term funding strategies which provide funding for multiple-purpose project and improve program management and control in the areas of eligibility, priority, and cost-effectiveness. Our evaluation of these alternative strategies is attached.

We invite your comments and recommendations on this very important issue. The comment period will extend until July 31, after which we expect to issue a policy memorandum. We will be conducting two seminars to discuss this question, as follows:

EPA Headquarters
401 M St. S. W.
Washington, D. C. 20060
10:00 a.m. July 23
Room M2409, Waterside Mall

EPA Region VIII
1860 Lincoln Street
Denver, Colorado 80203
10:00 a.m., July 24

If you require additional information or wish to discuss the question, please feel free to contact Myron Tiemens or Randall Kincaid of the Facility Requirements Division (202/426-9404) or Peter Perez of my immediate staff (202/755-0405).

Attachment

# STRATEGIES FOR FUNDING OF MULTIPLE-PURPOSE PROJECTS

Office of Water and Waste Management
United States Environmental Protection Agency
June 1979

Pollution Control Costs. The 1978 Needs Survey estimates the total pollution control costs in needs Categories I through V at $106 billion with a federal share of 75 percent, required grant dollars are $79.5 billion. If the total appropriation for the 201 program is $4.2 billion and if there is no inflation (either because there actually is no inflation or because funding goes up with the rate of inflation), then it will take 19 years to complete the funding of these needs. If there is inflation of any substantial magnitude (5.5 percent or greater) then the needs will never be funded. Table 2 shows these results. It also shows the number of years required for funding of needs if reserve capacity, collector sewers, and sewer system rehabilitation are eliminated. Making these deletions reduces the number of years required to complete funding, but if inflation is significant, even these reduced needs will not be met.

Table 3 shows the annual appropriation required to complete the funding of all category I through V needs in 10 and 20 years, and all needs except collector sewers and sewer system rehabilitation. What these data say is that if inflation continues at the current rate of 13 percent , then the program will require $10 billion per year for 20 years to fund all the category I through V needs, and $7.4 billion per year for 20 years to fund all needs except collector sewers and sewer system rehabilitation.

A number of implications are apparent from an examination of these data. If the 201 appropriation level remains roughly constant, then the pollution control needs alone will never be met, and if any significant amount of money is reallocated to other purposes, then some pollution control needs must be sacrificed. In order to maximize the abatement of existing pollution problems, we must consider eliminating or establishing a lower priority for various needs within categories I through V. Another possible approach to the ranking of 201 purposes might be to require that states establish a stronger linkage between priorities and the severity and nature of water pollution problems; this latter approach is discussed in detail below.

Shifts in State Allocations. There is one other implication of making large multiple-purpose projects eligible: doing so will change the needs levels among the states, resulting in a reallocation of funds among the states. For example, making urban drainage in CSO areas eligible will mean more funds for northeast and Great Lakes States. Increasing the eligibility of reclamation and reuse will shift funds to the west. We make no judgement on the desirability of such shifts; we suggest instead that it is simply a consequence of any policy change.

Table 2. Time in years Required to Complete Various Needs Categories at Different Level of Inflation*

| To Complete | Annual Inflation Rate 0 | 7% | 10% | 13% |
|---|---|---|---|---|
| Needs Categories I - V | 19 | Infinity | Infinity | Infinity |
| Needs Categories I - V excluding reserve capacity | 14 | Infinity | Infinity | Infinity |
| Needs Categories I - V Excluding Collector Sewers and Sewer System Rehabilitation | 15 | Infinity | Infinity | Infinity |
| Needs Categories I - V Excluding Reserve Capacity Collector Sewers, and Sewer System Rehabilitation | 11 | 17 | Infinity | Infinity |

*Based on annual appropriation of $4.2 billion and 75 percent federal share.

Source: 1978 Needs Survey

Needs Survey Categories

| | |
|---|---|
| Category I | Secondary Treatment |
| Category II | Higher than Secondary Treatment |
| Category IIIA | Correction of Infiltration/Inflow |
| Category IIIB | Rehabilitation of Sewer Systems |
| Category IVA | New Collector Sewers |
| Category IVB | New Interceptor Sewers |
| Category V | Control of Combined Sewer Overflow |

Table 3. Annual Appropriation Required to Complete Funding of Needs in 10 and 20 years at Various Levels of Inflation at 75 Percent Federal Share (Billions of Dollars)

| To Complete | Inflation Rate 0 | 7% | 10% | 13% |
|---|---|---|---|---|
| Needs Categories I - V | | | | |
| in 10 years | 7.0 | 10.0 | 11.4 | 12.9 |
| in 20 years | 3.5 | 6.6 | 8.2 | 10.0 |
| Needs Categories I - V excluding Collector Sewers and Sewer System Rehabilitation | | | | |
| in 10 years | 5.2 | 7.4 | 8.5 | 9.6 |
| in 20 years | 2.6 | 4.9 | 6.1 | 7.4 |

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CONSTRUCTION GRANTS PROJECT LIST

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | State of New Hampshire Water Supply & Pollution Control Commission 105 Loudon Road Concord, NH 03301 (1) | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | 30 | a. Center Harbor | R | 030 / 100-003 | 134-01 | 134-02 | 2 | 10/79 | Interceptor From Meredith to Center Harbor | | 0.175 | 0.130 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.175<br>V | A | Y |
| | 30 | b. Tilton | R | 552 / 100-003 | 154-01 | 154-02 | 3 | 10/79 | Interceptors to Connect Tilton To Tilton-Northfield Interceptor | | 1.200 | 0.900 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.200<br>V | A | Y |
| | 30 | c. Gilford | R | --- / 100-003 | 184-01 | 246-01 | 2 | 10/79 | Interceptor to Connect Gunstock Area to Gilford Interceptor and Abandon present Treatment Plant | | 0.040 | 0.030 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | B | Y |
| | 30 | Town of Belmont Main Street Belmont, NH 03220 | R | 1061 / 002-001 | 220-01 | 220-02 | 3 | 10/79 | Interceptors Lake Winnisquam Area | | 2.000 | 1.500 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.000<br>V | A | Y |

(1) New Hampshire has an approved Water Quality Management Plan and all projects on this list are consistent with said plan.

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| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 29 | City of Concord<br>41 Green Street<br>Concord, NH 03301 | | 901 / 062-002 | 157-02 | 157-05 | 3 | 4/79 | Contracts 3 and 4 for Pump Station Separation and Interceptors | | 17.349 | 13.012 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.568<br>V 15.757 | A<br>A | Y<br>Y |
| | 27 | City of Keene<br>3 Washington Street<br>Keene, NH 03431 | | 790 / 161-001 | 110-02 | 110-04 | 3 | 10/79 | I/I Elimination | | 0.200 | 0.150 | I<br>II<br>IIIa 0.200<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 27 | Town of Merrimack<br>P.O. Box 27<br>Merrimack, NH 03054 | | 161 / 052-001 | P-0011 201 | 235-01 | 2 | 4/79 | Treatment Additions | | 0.142 | 0.107 | I 0.142<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 27 | Town of Merrimack<br>P.O. Box 27<br>Merrimack, NH 03054 | | 161 / 052-001 | 215-03 | 215-04 | 3 | 10/79 | Interceptors to Country Club Estates | | 1.470 | 1.103 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.470<br>V | A | Y |
| | 27 | Town of Merrimack<br>P.O. Box 27<br>Merrimack, NH 03054 | | 161 / 052-001 | 215-05 | 215-05 | 3 | 10/79 | South Merrimack to Nashua Interceptors | | 2.666 | 2.000 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.666<br>V | A | Y |

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | | Town of Swanzey<br>P.O. Box 12<br>E. Swanzey, NH 03446 | | ---<br>150-003 | 191-01 | 191-02 | 3 | 4/80 | Treatment & Interceptors for West Swanzey | | 1.500 | 1.125 | I 0.900<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.600<br>V | B | Y |
| 27 | | Town of Troy<br>Town Office<br>Troy, NH 03465 | R | 1052<br>151-001 | 190-01 | 190-02 | 3 | 10/79 | Treatment & Interceptors | | 4.038 | 3.029 | I 2.922<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.116<br>V | A | Y |
| 25 | | City of Claremont<br>City Hall<br>Claremont, NH 03743 | | 048<br>096-001 | 114-02 | 114-03 | 3 | 10/79 | Interceptors And I/I Evaluations | | 2.779 | 2.084 | I<br>II<br>IIIa 0.706<br>IIIb<br>IVa<br>IVb 2.073<br>V | A | Y |
| 24 | | Town of Salem<br>Municipal Building<br>Salem, NH 03079 | | 773<br>086-001 | P-00109<br>701 | 250-01 | 1 | 10/79 | Facilities Plan | | 0.079 | 0.059 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.079<br>V | A | Y |
| 24 | | Sewer Commission<br>Town of Wilton<br>Town Office<br>Wilton, NH 03086 | R | 633<br>057-001 | 117-02 | 117-03 | 3 | 10/79 | Local Interceptors and Interceptor Milford | | 1.673 | 1.255 | I<br>II<br>IIIa<br>IIIb 0.263<br>IVa<br>IVb 1.410<br>V | A | Y |

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| (59) Priority Rank | (118) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (117) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | | City of Portsmouth<br>126 Daniel Street<br>Portsmouth, NH 03801 | | 234 / 083-001 | 196-02 | 196-03 | 3 | 10/79 | Evaluation and Rehabilitation | | 0.533 | 0.400 | I<br>II<br>IIIa<br>IIIb 0.533<br>IVa<br>IVb<br>V | A | Y |
| 22 | | Town of Hampton<br>136 Winnacunnet Road<br>Hampton, NH 03842 | | 077-001 | P-00111 201 | 195-01 | 2 | 10/79 | Per Prior Reports | | 0.185 | 0.139 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.185<br>V | A | Y |
| 22 | | Woodsville Fire Precinct<br>Town of Haverhill<br>Court Street<br>Haverhill, NH 03785 | R | 978 / 034-001 | 128-01 | 128-03 | 3 | 10/79 | Treatment and Interceptors to serve Woodsville Fire Precinct and Wells River Vermont | | 1.530 | 1.150 | I 1.230<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.300<br>V | A<br>A | Y<br>Y |
| 22 | | Woodsville Fire Precinct<br>Town of Haverhill<br>Court Street<br>Haverhill, NH 03785 | R | 978 / 034-001 | 128-02 | 128-04 | 3 | 10/79 | Interceptors & Sewer Separation to serve Woodsville Fire Precinct | | 1.867 | 1.400 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.981<br>V 0.886 | A<br>A | Y<br>Y |
| 22 | | Town of Littleton<br>One Union Street<br>Littleton, NH 03561 | | 153 / 040-001 | 129-02 | 129-03 | 3 | 10/79 | Evaluation Rehabilitation & Grit Removal Facilities at STP | | 0.467 | 0.350 | I 0.200<br>II<br>IIIa<br>IIIb 0.267<br>IVa<br>IVb<br>V | A<br>A | Y<br>Y |

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| (59) Priority Rank | (118) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (117) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 22 | Town of Durham<br>13 Newmarket Road<br>Durham, NH 03824 | | 455 / 089-001 | 161-01 | 161-04 | 2 | 10/79 | Interceptors per Facilities Plan | | 0.200 | 0.150 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.200<br>V | A | Y |
| | 21 | Town of Derry<br>48 East Broadway<br>Derry, NH 03038 | | 056 / 074-001 | 194-02 | 194-03 | 3 | 10/79 | Outfall to Merrimack River | | 3.897 | 2.923 | I 3.897<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 21 | Town of Newport<br>15 Sunapee Street<br>Newport, NH 03773 | | 200 / 097-001 | 169-02 | 169-03 | 3 | 10/79 | Sewer Rehabilitation | | 0.133 | 0.100 | I<br>II<br>IIIa<br>IIIb 0.133<br>IVa<br>IVb<br>V | A | Y |
| | 21 | Town of Stewartstown<br>Town Office<br>Stewartstown, NH 03597 | R | --- / 024-001 | 131-01 | 131-02 | 3 | 10/79 | Interceptors & Pump Station to STP in Canaan, VT. | | 1.242 | 0.932 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.242<br>V | B | Y |
| | 21 | Stewartstown, NH -<br>Canaan, VT<br>Town Office<br>Stewartstown, NH 03597 | R | --- / 024-00 | 217-01 | 217-02 | 3 | 10/79 | Treatment Additions at Canaan, Vt. | | 0.541 | 0.406 | I 0.541<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | B | Y |

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0700 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | Town of Winchester<br>Town Office<br>Winchester, NH 03470 | R | 401<br>019-001 | 140-02 | 140-03 | 2 | 10/79 | Alpwerlot Village Interceptor and Pump Station to STP in Winchester | | 0.090 | 0.067 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.090<br>V | A | Y |
| | 16 | Newfields Village Water & Sewer District<br>P.O. Box 45<br>Newfields, NH 03856 | R | ---<br>080-001 | 145-01 | 145-02 | 3 | 10/79 | Treatment & Interceptors | | 1.200 | 0.900 | I 0.400<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.800<br>V | B | Y |
| | 16 | County Commissioners<br>Grafton County Home<br>Woodsville, NH 03785 | | ---<br>104-001 | 146-01 | 146-02 | 3 | 10/79 | Pump Station & Force Main to Woodsville Fire Precinct STP | | 0.528 | 0.396 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.528<br>V | B | Y |
| | 15 | County Commissioners<br>Carroll County Home<br>Ossipee, NH 03814 | R | ---<br>101-001 | 177-02 | 177-03 | 3 | 10/79 | Spray Irrigation Treatment | 0.533 | 0.533 | 0.400 | I 0.533<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 14 | County Commissioners<br>Strafford County Home<br>6th Street Extension<br>Dover, NH 03820 | | 641<br>108-001 | 234-02 | 234-03 | 3 | 10/79 | Treatment Additions | | 0.229 | 0.172 | I 0.229<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |

State: New Hampshire

FUNDING YEAR 1980
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
Approved WS&PCC August 8, 1979


| (59) Priority Rank | (H0) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (02) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14 | Meriden Village Water & Sewer District Meriden, NH 03770 | R | 162-001 | 219-02 | 219-03 | 3 | 10/79 | Secondary Treatment & Interceptors | | 0.859 | 0.644 | I 0.477<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.382<br>V | B<br>B | Y<br>Y |
| | 13 | Town of Ossipee Town Office Center Ossipee, NH 03814 | R | 1125<br>011-001 | 147-01 | 147-02 | 2 | 10/79 | Land Applicaltion Treatment & Interceptors | 0.048 | 0.082 | 0.062 | I 0.048<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.034<br>V | A<br>A | Y<br>Y |
| | 13 | Town of Ossipee Town Office Center Ossipee, NH 03814 | R | 1125<br>011-003 | 147-02 | 147-03 | 3 | 4/80 | Land Application Treatment Interceptors | 1.387 | 2.500 | 1.870 | I<br>II 1.387<br>IIIa<br>IIIb<br>IVa<br>IVb 1.113<br>V | A<br>A | Y<br>Y |
| | 11 | Town of Lincoln Main Street Lincoln, NH 03251 | R | 706<br>038-001 | 183-01 | 183-02 | 2 | 10/79 | I/I Eval. & Rehab. Treatment Additions & Interceptors | | 0.457 | 0.343 | I 0.189<br>II<br>IIIa 0.267<br>IIIb<br>IVa<br>IVb 0.001<br>V | A<br>A<br>A | Y<br>Y<br>Y |
| | 10 | County Commissioners Rockingham County Home Court House Exeter, NH 03833 | | 609<br>107-001 | P-0111 201 | 243-01 | 1 | 10/79 | Facilities Plan | | 0.026 | 0.020 | I 0.026<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |

FUNDING YEAR 1980

CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
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State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | --- | P-0011X 201 | | | | | | | | I 0.045 | A | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 10 | Town of Epping<br>Town Hall<br>Epping, NH 03042 | R | 075-001 | | 247-01 | 1 | 10/79 | Facilities Plan | | 0.079 | 0.059 | IVb 0.034 | A | Y |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I | | |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | | | | | | | | | | | | | IVb | | |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I | | |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | | | | | | | | | | | | | IVb | | |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I | | |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | | | | | | | | | | | | | IVb | | |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I | | |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | | | | | | | | | | | | | IVb | | |
| | | | | | | | | | | | | | V | | |

FUNDS AVAILABLE FOR FY 80 CONSTRUCTION GRANTS PROJECT LIST

(As of August 1, 1979)

| | | |
|---|---|---|
| Balance FY 1972-1977 Allotments (PL 92-500 - $153,817,300) | | $ 0 |
| Balance FY 1977 Allotment (PL 95-26 - $6,742,000) | | 0 |
| Balance FY 1978 Allotment (PL 95-217 - $36,645,000) | | 0 |
| Balance FY 1979 Allotment (PL 95-392 - $36,489,300) | | 14,207,686 |
| Anticipated FY 1980 Allotment (Draft EPA/State Guidance for 1980 - March 1979) | | 33,010,000 |
| | | $47,217,686 |
| Required Reserves: | | |
| FY 80 SMAG (2% FY 80) | $ 660,200 | |
| FY 79 Innovative/Alternative (2% FY 79) | 729,786 | |
| FY 80 Innovative/Alternative (2% FY 80) | 660,200 | |
| FY 79 Alternative Small Community (4% FY 79) | 1,459,572 | |
| FY 80 Alternative Small Community (4% FY 80) | 1,320,400 | |
| Grant Increases (5% Balance FY 79 + 5% FY 80) | 2,360,884 | |
| Reserved for Grant Increases (2% FY 80) | 659,644 | $ 7,850,686 |
| Available for FY 80 Construction Grants Project List | | $39,367,000 |

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
Approved WS&PCC August 8, 1979

State: New Hampshire



| (59) Priority Rank | (118) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | State of New Hampshire<br>Water Supply & Pollution<br>Control Commission<br>105 Loudon Road<br>Concord, NH 03301 (1) | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | 30 | a. Belmont | R | ---<br>100-003 | 211-01 | 211-02 | 3 | 10/80 | Belmont Interceptors | | 2.300 | 1.725 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.300<br>V | B | Y |
| | 30 | c. Gilford | R | ---<br>100-003 | 246-01 | 246-02 | 3 | 10/80 | Gunstock Interceptor | | 0.540 | 0.405 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.540<br>V | A | Y |
| | 30 | d. Franklin | | 072<br>100-003 | 155-01 | 155-02 | 3 | 10/80 | Separation | | 0.520 | 0.390 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.520<br>V | A | Y |
| | 28 | City of Manchester<br>908 Elm Street<br>Manchester, NH 03101 | | 447<br>051-001 | 192-01 | 192-02 | 2 | 10/80 | Interceptors | | 0.667 | 0.500 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.667<br>V | A | Y |

(1) New Hampshire has an approved Water Quality Management Plan and all projects on this list are consistent with said plan.

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
Approved WS&PCC August 8, 1979

State: New Hampshire



| (59) Priority Rank | (118) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (117) Est. EPA Asst. (mil. of dollars) | (71) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | | City of Keene<br>3 Washington Street<br>Keene, NH 03431 | | 790 / 761-001 | 110-02 | 110-05 | 3 | 10/80 | Advanced Secondary Treatment & Interceptors | | 23.181 | 17.386 | I 17.293<br>IIa 1.045<br>IIb<br>IVa<br>IVb 4.843<br>V | A<br>A<br>A | Y<br>Y<br>Y |
| 25 | | City of Claremont<br>City Hall<br>Claremont, NH 03743 | | 048 / 896-001 | 114-02 | 114-04 | 3 | 10/80 | Secondary Treatment & Interceptors | | 25.417 | 19.062 | I 19.706<br>II<br>IIa<br>IIb<br>IVa<br>IVb 5.711<br>V | A<br>A | Y<br>Y |
| 23 | | City of Somersworth<br>157 Main Street<br>Somersworth, NH 03878 | | 277 / 094-001 | 163-01 | 163-02 | 2 | 10/80 | Separation | | 0.600 | 0.450 | I<br>II<br>IIa<br>IIb<br>IVa<br>IVb 0.364<br>V 0.236 | A<br>A | Y<br>Y |
| 23 | | City of Dover<br>Municipal Building<br>Dover, NH 03820 | | 064 / 088-001 | 200-02 | 200-03 | 3 | 10/80 | Sewer Rehabilitation | | 0.710 | 0.532 | I<br>II<br>IIa<br>IIb 0.710<br>IVa<br>IVb<br>V | A | Y |
| 23 | | Town of Hillsboro<br>Town Office<br>Hillsboro, NH 03244 | | 111 / 049-001 | 120-02 | 120-03 | 3 | 10/80 | Treatment & Interceptors | 1.125 | 3.600 | 2.700 | I 2.250<br>II<br>IIa<br>IIb<br>IVa<br>IVb 1.350<br>V | A<br>A | Y<br>Y |

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CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
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State: New Hampshire



| (59) Priority Rank | (HG) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (71) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 21 | Town of Enfield<br>Whitney Hall<br>Enfield, NH 03748 | R | 1087<br>031-001 | 167-01 | 167-02 | 2 | 10/80 | Interceptors to Lebanon | | 0.359 | 0.269 | I<br>IIa<br>IIb<br>IVa<br>IVb 0.359<br>V | A | Y |
| | 12 | Town of Jaffrey<br>Main Street<br>Jaffrey, NH 03452 | | 595<br>016-001 | 238-01 | 238-02 | 2 | 10/80 | Treatment Additions Interceptors and I/I Eval. & Rehab. | | 0.271 | 0.203 | I 0.096<br>IIa 0.069<br>IIb<br>IVa<br>IVb 0.106<br>V | A<br>A<br>A | Y<br>Y<br>Y |
| | 10 | Precinct of Haverhill Corner<br>Haverhill, NH 03765 | R | | P-00111 261 | 248-01 | 1 | 10/80 | Facilities Plan | | 0.040 | 0.030 | I 0.020<br>IIa<br>IIb<br>IVa<br>IVb 0.020<br>V | B<br>B | Y<br>Y |
| | 30 | City of Rochester<br>31 Wakefield Street<br>Rochester, NH 03867 | | 668<br>092-001 | 122-02 | 122-03 | 3 | 10/81 | Advanced Treatment I/I Correction & Interceptors | | 9.962 | 7.472 | I 7.228<br>IIa 1.591<br>IIb 0.143<br>IVa<br>IVb 1.000<br>V | A<br>A<br>A<br>A | Y<br>Y<br>Y<br>Y |
| | 30 | Town of Gilford<br>RFD #5<br>Laconia, NH 03246 | R | ---<br>004-001 | 184-01 | 184-02 | 3 | 10/81 | Interceptors | | 1.250 | 0.938 | I<br>IIa<br>IIb<br>IVa<br>IVb 1.250<br>V | B | Y |

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CONSTRUCTION GRANTS PROJECT LIST

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| (59) Priority Rank | (H6) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (JU) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | Town of Belmont<br>Main Street<br>Belmont, NH 03220 | R | 1081<br>002-001 | 220-01 | 220-03 | 3 | 10/81 | Village Interceptors | | 2.000 | 1.500 | I<br>IIa<br>IIb<br>IVa<br>IVb 2.000<br>V | A | Y |
| 29 | | City of Concord<br>44 Green Street<br>Concord, NH 03301 | | 901<br>862-002 | 157-02 | 157-04 | 3 | 10/81 | Contract 2 Separation & Interceptors | | 4.112 | 3.084 | I<br>IIa<br>IIb<br>IVa<br>IVb 3.183<br>V 0.929 | A<br>A | Y<br>Y |
| 27 | | Town of Marlborough<br>Town Office<br>Marlborough, NH 03458 | R | 1117<br>140-001 | 189-01 | 189-02 | 3 | 10/81 | Interceptors | | 1.700 | 1.275 | I<br>IIa<br>IIb<br>IVa<br>IVb 1.700<br>V | A | Y |
| 27 | | Town of Swanzey<br>P.O. Box 12<br>E. Swanzey, NH 03446 | | ---<br>150-002 | 191-01 | 191-03 | 3 | 10/81 | No. Swanzey Interceptors | | 0.741 | 0.556 | I<br>IIa<br>IIb<br>IVa<br>IVb 0.741<br>V | B | Y |
| 24 | | Town of Hanover<br>P.O. Box 483<br>Hanover, NH 03755 | | 099<br>033-001 | 115-02 | 115-04 | 3 | 10/81 | Sewer Rehabilitation | | 0.900 | 0.675 | I<br>IIa 0.724<br>IIb 0.176<br>IVa<br>IVb<br>V | A<br>A | Y<br>Y |

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (02) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | | City of Portsmouth<br>126 Daniel Street<br>Portsmouth, NH 03801 | | 234<br>083-001 | 196-02 | 196-04 | 3 | 10/81 | Interceptors & Sewer Separation | | 10.780 | 8.085 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.267<br>V 9.513 | A<br>A | Y<br>Y |
| 22 | | Town of Hopkinton<br>P.O. Box 446<br>Contoocook, NH 03229 | R | 579<br>066-001 | 165-02 | 165-03 | 3 | 10/81 | Treatment & Interceptors | | 2.886 | 2.165 | I 1.253<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.633<br>V | A<br>A | Y<br>Y |
| 22 | | Town of Milton<br>North Main Street<br>Milton, NH 03851 | R | 676<br>091-001 | 166-01 | 166-02 | 2 | 10/81 | Treatment and Interceptors | | 0.419 | 0.314 | I 0.192<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.227<br>V | A<br>A | Y<br>Y |
| 21 | | Town of Derry<br>48 East Broadway<br>Derry, NH 03038 | | 056<br>074-001 | 194-02 | 194-04 | 3 | 10/81 | Secondary Treatment Expansion | | 4.266 | 3.200 | I 4.266<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | State of New Hampshire Water Supply & Pollution Control Commission 105 Loudon Road Concord, NH 03301 | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | 30 | a. Center Harbor | R | 030 / 100-03 | 134-02 | 134-03 | 3 | 10/82 | Interceptors | | 1.500 | 1.125 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.500<br>V | A | Y |
| | 30 | b. Sanbornton | R | --- / 100-003 | 212-01 | 212-02 | 3 | 10/82 | Interceptors | | 1.900 | 1.425 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.900<br>V | A | Y |
| | 30 | Town of Meredith Main Street Meredith, NH 03253 | R | 757 / 006-001 | 240-01 | 240-02 | 2 | 10/82 | Interceptors | | 0.200 | 0.150 | I<br>II<br>IIIa 0.020<br>IIIb<br>IVa<br>IVb 0.180<br>V | A | Y |
| | 30 | City of Franklin Central Street Franklin, NH 03235 | | --- / 063-001 | P-00111 201 | 249-01 | 1 | 10/82 | Facilities Plan | | 0.072 | 0.054 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.072<br>V | A | Y |

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (HZ) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | City of Laconia<br>Municipal Building<br>Beacon Street East<br>Laconia, NH 03246 | | 130 / 005-001 | 201-04 | 201-05 | 3 | 10/82 | Interceptors | | 2.402 | 1.802 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.402<br>V | A | Y |
| | 28 | City of Manchester<br>908 Elm Street<br>Manchester, N 03101 | | 447 / 051-01 | 192-02 | 192-03 | 3 | 10/82 | Interceptors | | 7.922 | 5.942 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 7.922<br>V | A | Y |
| | 24 | Town of Hanover<br>P.O. Box 483<br>Hanover, NH 93755 | | 099 / 033-001 | 115-02 | 115-05 | 3 | 10/82 | Treatment | | 3.468 | 2.601 | I 3.468<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 23 | Board of Sewer<br>Commissioners<br>Town of Newmarket<br>Main Street<br>Newmarket, NH 03857 | | 496 / 082-001 | 162-02 | 162-03 | 3 | 10/82 | Sewer<br>Rehabilitation<br>and<br>Interceptors | | 2.658 | 1.994 | I<br>II 0.142<br>IIIa<br>IIIb<br>IVa 2.516<br>IVb<br>V | A | Y |
| | 23 | City of Dover<br>Municipal Building<br>Dover, NH 03820 | | 064 / 088-001 | 200-02 | 200-04 | 3 | 10/82 | Treatment | | 8.906 | 6.680 | I 8.906<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
Approved WS&PCC August 8, 1979

State: New Hampshire



| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (HZ) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | | Town of Canaan<br>Church Street<br>Canaan, NH 03741 | R | ---<br>030-001 | 164-01 | 164-02 | 2 | 10/82 | Treatment and Interceptors | | 0.363 | 0.272 | I<br>II 0.212<br>IIIa<br>IIIb<br>IVa<br>IVb 0.151<br>V | A<br>A | Y<br>Y |
| 21 | | Plymouth Village Water & Sewer District<br>Court House<br>Plymouth, NH 03264 | | 242<br>041-01 | 132-02 | 132-03 | 3 | 10/82 | Sewer Rehabilitation | | 0.473 | 0.355 | I<br>II<br>IIIa 0.473<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| 21 | | Town of Newport<br>15 Sunapee Street<br>Newport, NH 03773 | | 200<br>-002<br>097-001 | 169-02 | 169-04 | 3 | 10/82 | Treatment and Interceptors | | 3.405 | 2.554 | I 2.859<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.546<br>V | A<br>A | Y<br>Y |
| 20 | | Town of Sunapee<br>Main Street<br>Sunapee, NH 03782 | R | 544<br>098-01 | 224-01 | 224-02 | 2 | 10/82 | Interceptors | | 0.200 | 0.150 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.200<br>V | A | Y |
| 16 | | Sewer Commission<br>Town of Bow<br>10 Grandview Road<br>Bow, NH 03301 | R | 480<br>061-001 | 185-01 | 185-02 | 3 | 10/82 | Interceptor and Pump Station | | 3.600 | 2.700 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 3.600<br>V | A | Y |

May 1, 1979
Approved WS&PCC August 8, 1979

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (N7) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 | Conway Village Fire District Conway, NH 03818 | | 412 / 110-001 | 237-01 | 237-02 | 3 | 10/82 | Treatment Expansion Interceptors | | 2.206 | 1.655 | I 1.200<br>II<br>IIIa<br>IIIb 0.089<br>IVa<br>IVb 0.917<br>V | A<br>A<br>A | Y<br>Y<br>Y |
| | 11 | Town of Lincoln Main Street Lincoln, NH 03251 | R | 706 / 038-01 | 183-02 | 183-03 | 3 | 10/82 | Treatment and Interceptors | | 1.713 | 1.285 | I 1.712<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.001<br>V | A<br>A | Y<br>Y |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
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State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (HZ) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | City of Rochester<br>31 Wakefield Street<br>Rochester, NH 03867 | | 668<br>092-001 | 122-02 | 122-04 | 3 | 10/83 | Interceptors | | 4.039 | 3.029 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.039<br>V | A | Y |
| 28 | | City of Manchester<br>908 Elm Street<br>Manchester, NH 03101 | | 447<br>051-001 | 192-02 | 192-04 | 3 | 10/83 | Interceptors | | 14.826 | 11.120 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 14.826<br>V | A | Y |
| 25 | | Board of Sewer Comm.<br>Town of Goffstown<br>Town Office<br>Goffstown, NH 03045 | | 081<br>047-001 | 113-02 | 113-03 | 3 | 10/83 | Interceptor to Manchester, or Treatment & Interceptors | | 6.400 | 4.800 | I 2.000<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.400<br>V | A<br>A | Y<br>Y |
| 23 | | Board of Sewer Comm.<br>Town of Newmarket<br>Main Street<br>Newmarket, NH 03857 | | 196<br>082-001 | 162-02 | 162-04 | 3 | 10/83 | Secondary Treatment | | 1.516 | 1.137 | I 1.516<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| 21 | | Plymouth Village Water & Sewer District<br>Court House<br>Plymouth, NH 03264 | | 242<br>041-001 | 132-02 | 132-04 | 3 | 10/83 | Secondary Treatment and Interceptors | | 2.258 | 1.694 | I 1.572<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.686<br>V | A | Y |

May 1, 1979
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EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST



State: New Hampshire

| (59) Priority Rank | (116) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (U2) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 871 | | | | | | | | | 2.500 | A | Y |
| 21 | | Town of Exeter<br>10 Front Street<br>Exeter, NH 03833 | | 076-001 | 130-02 | 130-03 | 3 | 10/83 | Treatment Interceptors and Separation | | 7.021 | 5.266 | I<br>IIa<br>IIb .297<br>Va<br>Vb 2.161<br>V 2.063 | A<br>A<br>A | Y<br>Y<br>Y |
| 20 | | Town of Londonderry<br>P.O. Box 366<br>Londonderry, NH 03053 | | --- 878-001 | P-00111 201 | 181-01 | 3 | 10/83 | Interceptors, North | | 1.565 | 1.174 | I<br>IIa<br>IIb<br>Va<br>Vb 1.565<br>V | B | Y |
| 15 | | Town of Seabrook<br>Collins Street<br>Seabrook, NH 03874 | | --- 887-001 | 178-01 | 178-02 | 2 | 10/83 | Treatment and Interceptors | | 0.625 | 0.469 | 0.221<br>I<br>IIa<br>IIb<br>Va<br>Vb 0.404<br>V | B<br>B | Y<br>Y |
| 13 | | Town of Pittsburg<br>Main Street<br>Pittsburg, NH 03592 | R | --- 446-001 | 223-01 | 223-02 | 2 | 10/83 | Treatment and Interceptors | | 0.056 | 0.042 | 0.016<br>I<br>IIa<br>IIb<br>Va<br>Vb 0.040<br>V | B<br>B | Y<br>Y |
| 10 | | Precinct of<br>Haverhill Corner<br>Haverhill, NH 03765 | R | --- --- | 248-01 | 248-02 | 2 | 10/83 | Treatment and Interceptors | | 0.080 | 0.060 | 0.040<br>I<br>IIa<br>IIb<br>Va<br>Vb 0.040<br>V | B<br>B | Y<br>Y |

EXTENDED LIST - FY 1981-FY 1984 INCLUSIVE
CONSTRUCTION GRANTS PROJECT LIST

May 1, 1979
Approved WS&PCC August 8, 1979

State: New Hampshire



| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | (71) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | --- | | | | | | | | | 0.100 | | |
| | 10 | Precinct of Haverhill Corners Haverhill, NH 03765 | R | --- | 248-01 | 248-03 | 3 | 5/84 | Treatment and Interceptors | | 0.200 | 0.150 | II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.100 | S | Y |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb | | |

FUNDS AVAILABLE

CONSTRUCTION GRANTS PROJECT LIST

FY 81-84

| | | |
|---|---|---|
| Anticipated FY 1981 Allotment (Draft EPA/State Guidance for 1980 - March 1979) Based on Appropriation of $4 billion | | $34,750,000 |
| Required Reserves: | | |
| SMAG 2% | $ 695,000 | |
| Innovative/Alternative 3% | 1,042,500 | |
| Alternative Small Community 4% | 1,390,000 | |
| Grant Increase 5% | 1,737,500 | |
| | | 4,865,000 |
| Balance for FY 1981 List | | $29,855,000 |
| FY 1982 to 1984 - Same each year as FY 1981 but less Innovative/Alternative Reserve Requirement | | $30,879,500 |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Alterm. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | City of Franklin<br>Central Street<br>Franklin, NH 03235 | | 863-001 | 249-01 | 249-02 | 2 | | Interceptors to Winnipesaukee River Basin System | | 0.100 | 0.075 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.100<br>V | A | Y |
| | 30 | City of Franklin<br>Central Street<br>Franklin, NH 03235 | | 863-001 | 249-02 | 249-03 | 3 | | Interceptors to Winnipesaukee River Basin System | | 1.000 | 0.750 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.000<br>V | A | Y |
| | 30 | Town of Sanbornton<br>Town Office<br>Sanbornton, NH 03269 | R | 008-001 | P-0010<br>701 | 231-01 | 1 | | Facilities Plan | | 0.040 | 0.030 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | B | Y |
| | 30 | Town of Sanbornton<br>Town Office<br>Sanbornton, NH 03269 | R | 008-001 | 231-01 | 231-02 | 2 | | Interceptors to Winnipesaukee River Basin System | | 0.129 | 0.097 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.097<br>V | B | Y |
| | 30 | Town of Sanbornton<br>Town Office<br>Sanbornton, NH 03269 | R | 008-001 | 231-02 | 231-03 | 3 | | Interceptors to Winnipesaukee River Basin System | | 1.157 | 0.868 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.157<br>V | B | Y |

EXTENDED LIST B - AFTER FY 1984

CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | Town of Meredith<br>Main Street<br>Meredith, NH 03253 | | 757 / 006-001 | 240-02 | 240-03 | 3 | | Local Interceptors | | 1.000 | 0.750 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.000<br>V | A | Y |
| | 28 | City of Manchester<br>908 Elm Street<br>Manchester, NH 03101 | | 447 / 051-001 | 192-01 | 192-05 | 2 | | Separation | | 4.000 | 3.000 | I<br>II<br>IIIa<br>IIIb 1.185<br>IVa<br>IVb<br>V 2.815 | A<br>A | Y<br>Y |
| | 28 | City of Manchester<br>908 Elm Street<br>Manchester, NH 03101 | | 447 / 051-001 | 192-01 | 192-06 | 3 | | Separation | | 36.000 | 27.000 | I<br>II<br>IIIa<br>IIIb 10.667<br>IVa<br>IVb<br>V 25.333<br>I 21.881 | A<br>A<br>A | Y<br>Y<br>Y |
| | 28 | City of Nashua<br>229 Main Street<br>Nashua, NH 03060 | | 170 / 054-001 | 158-02 | 158-05 | 3 | | Upgrade to Secondary Treatment | | 21.881 | 16.411 | II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | 28 | City of Nashua<br>229 Main Street<br>Nashua, NH 03060 | | 170 / 054-001 | 241-01 | 241-02 | 2 | | Separation | | 3.180 | 2.385 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 3.180 | A | Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (118) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | | City of Nashua<br>229 Main Street<br>Nashua, NH 03060 | | 170 / 054-001 | 241-02 | 241-03 | 3 | | Separation | | 28.620 | 21.465 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 28.620 | A | Y |
| 27 | | Town of Merrimack<br>P.O. Box 27<br>Merrimack, NH 03054 | | 161 / 052-001 | 235-01 | 235-02 | 3 | | Treatment Additions | | 2.200 | 1.650 | I 2.200<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| 24 | | Town of Salem<br>Municipal Building<br>Salem, NH 03079 | | 773 / 086-001 | 193-02 | 193-03 | 3 | | Treatment Expansion and Interceptors or Interceptors to Greater Lawrence | | 5.454 | 4.091 | I<br>II 3.734<br>IIIa 0.371<br>IIIb<br>IVa<br>IVb 1.349<br>V | A<br>A<br>A | Y<br>Y<br>Y |
| 24 | | City of Portsmouth<br>126 Daniel Street<br>Portsmouth, NH 03801 | | 234 / 083-001 | 196-02 | 196-05 | 3 | | Upgrade to Secondary Treatment | | 7.352 | 5.514 | I 7.352<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| 23 | | City of Somersworth<br>157 Main Street<br>Somersworth, NH 03878 | | 227 / 094-001 | 163-02 | 163-03 | 3 | | Interceptors and Separation | | 6.000 | 4.500 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 3.636<br>V 2.364 | A<br>A | Y<br>Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (37) Project Step | (A5) Grant Agr. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | | Town of Hampton 136 Winnacunnet Road Hampton, NH 03842 | | 625 / 877-001 | 195-01 | 195-02 | 3 | | Interceptors | | 5.139 | 3.854 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 5.139<br>V | A | Y |
| 22 | | Town of Canaan Church Street Canaan, NH 03741 | R | 830-001 | 164-02 | 164-03 | 3 | | Advanced Secondary Treatment and Interceptors | 1.426 | 3.264 | 2.448 | I<br>II 1.901<br>IIIa<br>IIIb<br>IVa<br>IVb 1.363<br>V | B | Y |
| 22 | | Town of Durham 13 Newmarket Road Durham, NH 03824 | | 455 / 809-001 | 161-04 | 161-05 | 3 | | Interceptors | | 3.000 | 2.250 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 3.000<br>V | A | Y |
| 22 | | Town of Pelham Gage Hill Road Pelham, NH 03076 | | 145-001 | 127-01 | 127-02 | 2 | | Advanced Secondary Treatment & and Interceptors | 0.378 | 0.645 | 0.484 | I<br>II 0.504<br>IIIa<br>IIIb<br>IVa<br>IVb 0.141<br>V | B | Y |
| 22 | | Town of Pelham Gage Hill Road Pelham, NH 03076 | | 145-001 | 127-02 | 127-03 | 3 | | Advanced Secondary or Tertiary Treatment Treatment & Interceptors | 3.401 | 5.801 | 4.351 | I<br>II 4.636<br>IIIa<br>IIIb<br>IVa<br>IVb 1.266<br>V | B | Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (17)/(18) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | | Town of Littleton<br>One Union Street<br>Littleton, NH 03561 | | 159<br>040-001 | 129-02 | 129-04 | 3 | | Upgrade to Secondary Treatment & Separation | | 4.017 | 3.013 | I 3.170<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 0.847 | A | Y |
| 22 | | Town of Milton<br>No. Main Street<br>Milton, NH 03851 | R | 676<br>091-001 | 166-02 | 166-03 | 3 | | Treatment and Interceptors | | 3.767 | 2.825 | I 1.720<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.047<br>V | A | Y |
| 21 | | Town of Enfield<br>Whitney Hall<br>Enfield, NH 03748 | R | 1087<br>031-001 | 167-02 | 167-03 | 3 | | Interceptors | | 4.428 | 3.321 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.428<br>V | A | Y |
| 21 | | Sewer Commission<br>Town of Hooksett<br>16 Main Street<br>Hooksett, NH 03106 | | 129<br>065-001 | 187-01 | 187-02 | 2 | | Treatment and Interceptors | | 0.200 | 0.150 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.100<br>V | A | Y |
| 21 | | Sewer Commission<br>Town of Hooksett<br>16 Main Street<br>Hooksett, NH 03106 | | 129<br>065-001 | 187-02 | 187-03 | 3 | | Treatment and Interceptors | | 9.854 | 7.391 | I 2.128<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 7.726<br>V | A | Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 21 | City of Lebanon<br>51 North Park Street<br>Lebanon, NH 03766 | | 366 / 037-001 | 226-01 | 226-02 | 2 | | Separation or Stormwater Treatment | | 0.230 | 0.172 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 0.230 | A | Y |
| | 21 | City of Lebanon<br>51 North Park Street<br>Lebanon, NH 03766 | | 366 / 037-001 | 226-02 | 226-03 | 3 | | Separation or Stormwater Treatment | | 1.626 | 1.220 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 1.626 | A | Y |
| | 21 | Town of Exeter<br>10 Front Street<br>Exeter, NH 03833 | | 871 / 076-001 | 130-02 | 130-04 | 3 | | Separation | | 2.063 | 1.547 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 2.063 | A | Y |
| | 21 | Town of Whitefield<br>Jefferson Road<br>Whitefield, NH 03598 | R | 510 / 026-001 | 168-02 | 168-03 | 3 | | Treatment and Interceptors | | 2.800 | 2.100 | I 1.580<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.220<br>V | A | Y |
| | 20 | Town of Londonderry<br>P.O. Box 366<br>Londonderry, NH 03053 | | / 078-001 | 213-01 | 213-02 | 2 | | Secondary Treatment & Interceptors, South Londonderry | | 0.566 | 0.425 | I 0.394<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.172<br>V | B | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | Town of Londonderry<br>P.O. Box 366<br>Londonderry, NH 03053 | | 678-001 | 213-02 | 213-03 | 3 | | Treatment &<br>Interceptors<br>South Londonderry | | 5.049 | 3.821 | I 3.545<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.549<br>V | B<br><br><br><br><br>B | Y<br><br><br><br><br>Y |
| | 20 | Town of Winchester<br>Town Office<br>Winchester, NH 03470 | R | 401<br>819-001 | 140-03 | 140-04 | 3 | | Ashuelot Village<br>Interceptor &<br>Pumping Station | | 0.960 | 0.720 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.960<br>V | <br><br><br><br><br>A | <br><br><br><br><br>Y |
| | 20 | Town of Sunapee<br>Main Street<br>Sunapee, NH 03782 | R | 544<br>898-001 | 224-02 | 224-03 | 3 | | Interceptors | | 0.800 | 0.600 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.800<br>V | <br><br><br><br><br>A | <br><br><br><br><br>Y |
| | 20 | Town of Bedford<br>North Amherst Road<br>Bedford, NH 03102 | | 1095<br>045-001 | 136-01 | 136-02 | 3 | | Interceptors | | 5.237 | 3.928 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 5.237<br>V | <br><br><br><br><br>A | <br><br><br><br><br>Y |
| | 20 | Town of Raymond<br>Epping Street<br>Raymond, NH 03077 | | 084-001 | 170-01 | 170-02 | 2 | | Secondary<br>Treatment &<br>& Interceptors | | 0.376 | 0.282 | I 0.129<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.247<br>V | B<br><br><br><br><br>B | Y<br><br><br><br><br>Y |



63-935 O—80—37

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | | Town of Raymond<br>Epping Street<br>Raymond, NH 03077 | | 084-001 | 170-02 | 170-03 | 3 | | Secondary Treatment & Interceptors | | 3.384 | 2.538 | I 1.168<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.216<br>V | B<br>B | Y<br>Y |
| 19 | | Town of Stratford<br>Town Office<br>No. Stratford, NH 03590 | R | 536 / 002 / 025-001 | 172-02 | 172-03 | 3 | | Secondary Treatment & Interceptors | | 1.233 | 0.925 | I 0.456<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.777<br>V | A<br>A | Y<br>Y |
| 19 | | Town of Bath<br>Town Office<br>Bath, NH 03470 | R | 1079 / 114-01 | 173-01 | 173-02 | 2 | | Treatment and Interceptors | | 0.052 | 0.039 | I 0.012<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | A<br>A | Y<br>Y |
| 19 | | Town of Bath<br>Town Office<br>Bath, NH 03740 | R | 1079 / 114-001 | 173-02 | 173-03 | 3 | | Treatment and Interceptors | | 0.520 | 0.390 | I 0.120<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.400<br>V | A<br>A | Y<br>Y |
| 19 | | Town of Northumberland<br>State Street<br>Groveton, NH 03582 | R | 265 / 023-001 | 152-02 | 152-03 | 3 | | Interceptors and Pump Station | | 2.795 | 2.096 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.882<br>V | A | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 19 | Town of Dalton<br>RFD #2<br>Whitefield, NH 03598 | R | 120-001 | 221-01 | 221-02 | 2 | | Treatment and Interceptors | 0.050 | 0.095 | 0.071 | I 0.067<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.028<br>V | A<br><br><br><br><br>A | Y<br><br><br><br><br>Y |
| | 19 | Town of Dalton<br>RFD #2<br>Whitefield, NH 03598 | R | 120-001 | 221-02 | 221-03 | 3 | | Teatment and Interceptors | 0.454 | 0.859 | 0.644 | I 0.606<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.253<br>V | A<br><br><br><br><br>A | Y<br><br><br><br><br>Y |
| | 19 | Town of Monroe<br>Town Office<br>Monroe, NH 03771 | R | 897<br>141-001 | 188-01 | 188-02 | 2 | | Treatment and Interceptors | | 0.099 | 0.074 | I 0.048<br>II<br>IIIa<br>IIIb 0.023<br>IVa<br>IVb 0.028<br>V | A<br><br><br>A<br><br>A | Y<br><br><br>Y<br><br>Y |
| | 19 | Town of Monroe<br>Town Office<br>Monroe, NH 03771 | R | 897<br>141-001 | 188-02 | 188-03 | 3 | | Treatment and Interceptors | | 0.895 | 0.671 | I 0.437<br>II<br>IIIa<br>IIIb 0.211<br>IVa<br>IVb 0.247<br>V | A<br><br><br>A<br><br>A | Y<br><br><br>Y<br><br>Y |
| | 19 | Sewer Commission<br>Town of Rollinsford<br>Main Street<br>Rollinsford, NH 03869 | R | 251<br>093-001 | 142-01 | 142-02 | 2 | | Treatment Expansion and Interceptors | | 0.400 | 0.300 | I<br>II 0.133<br>IIIa<br>IIIb<br>IVa<br>IVb 0.267<br>V | <br>A<br><br><br><br>A | <br>Y<br><br><br><br>Y |

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| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 19 | Sewer Commission<br>Town of Rollinsford<br>Main Street<br>Rollinsford, NH 03869 | R | 251 / 093-001 | 142-02 | 143-03 | 3 | | Treatment Expansion And Interceptors | | 2.400 | 1.800 | I<br>II 0.800<br>IIIa<br>IIIb<br>IVa<br>IVb 1.600<br>V | A<br>A | Y<br>Y |
| | 18 | Bethlehem Precinct<br>Box 424<br>Bethlehem, NH 03574 | R | 501 / 028-001 | 143-02 | 143-03 | 3 | | Secondary Treatment And Interceptors | | 3.140 | 2.355 | I<br>II 1.647<br>IIIa 0.912<br>IIIb 0.435<br>IVa<br>IVb 0.146<br>V | A<br>A<br>A<br>A | Y<br>Y<br>Y<br>Y |
| | 18 | Town of Colebrook<br>Box 13<br>Colebrook, NH 03576 | R | 515 / 0021-001 | 144-02 | 144-03 | 3 | | Secondary Treatment | | 0.780 | 0.585 | I 0.560<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.220<br>V | A<br>A | Y<br>Y |
| | 17 | Town of Wakefield<br>Town Office<br>Sanbornville, NH 03872 | R | 003 -002 / 0152-001 | 175-01 | 175-02 | 2 | | Advanced Secondary Treatment & Interceptors | 0.150 | 0.232 | 0.174 | I<br>II 0.200<br>IIIa<br>IIIb<br>IVa<br>IVb 0.032<br>V | B<br>B | Y<br>Y |
| | 17 | Town of Wakefield<br>Town Office<br>Sanbornville, NH 03872 | R | 003 -002 / 0152-001 | 175-02 | 175-03 | 3 | | Treatment And Interceptors | 1.350 | 2.083 | 1.562 | I<br>II 1.800<br>IIIa<br>IIIb<br>IVa<br>IVb 0.283<br>V | B<br>B | Y<br>Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16 | Town of Walpole<br>Town Office<br>Walpole, NH 03608 | R | 463 / 0018-001 | 180-01 | 180-02 | 3 | | Pumping Station to Bellow's Falls, Vermont, and Interceptor | | 3.000 | 2.250 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 3.000<br>V | A | Y |
| | 15 | Town of Lancaster<br>Box 151<br>Lancaster, NH 03584 | R | 145 / 0022-001 | 228-01 | 228-02 | 2 | | Separation | | 0.160 | 0.120 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 0.160 | A | Y |
| | 15 | Town of Lancaster<br>Box 151<br>Lancaster, NH 03584 | R | 145 / 0022-001 | 228-02 | 228-03 | 3 | | Separation | | 1.600 | 1.200 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 1.600 | A | Y |
| | 15 | Town of Bennington<br>Town Office<br>Bennington, NH 03242 | R | 0046-001 | 218-02 | 218-03 | 3 | | Treatment | 0.155 | 0.576 | 0.432 | I<br>II 0.207<br>IIIa<br>IIIb<br>IVa<br>IVb 0.369<br>V | B | Y |
| | 15 | Town of Seabrook<br>Collins Street<br>Seabrook, NH 03874 | | 0087-001 | 178-02 | 178-03 | 3 | | Secondary Treatment & Interceptors | | 6.254 | 4.691 | I 2.220<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.034<br>V | B | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | I 0.160 | B | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 13 | Town of Pittsburg<br>Main Street<br>Pittsburg, NH 03592 | R | 0146-001 | 223-02 | 223-03 | 3 | | Secondary Treatment & Interceptors | | 0.560 | 0.420 | IVb 0.400 | B | Y |
| | | | | | | | | | | | | | V | | |
| | | | | 595 | | | | | | | | | I 0.869 | A | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 12 | Town of Jaffrey<br>Main Street<br>Jaffrey, NH 03452 | | 0016-001 | 238-02 | 238-03 | 3 | | Treatment Expansion | | 1.821 | 1.366 | IVb 0.952 | A | Y |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I 0.020 | B | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 11 | Glencliff Home for the Elderly<br>Glencliff, NH 03238 | R | 0156-001 | P-001<br>112-01 | 179-01 | 1 | | Facilities Plan | 0.015 | 0.024 | 0.018 | IVb 0.004 | B | Y |
| | | | | | | | | | | | | | V | | |
| | | | | | | | | | | | | | I 0.020 | B | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 11 | Glencliff Home for the Elderly<br>Glencliff, NH 03238 | R | 0156-001 | 179-01 | 179-02 | 2 | | Treatment | 0.015 | 0.024 | 0.018 | IVb 0.004 | B | Y |
| | | | | | | | | | | | | | V 0.198 | B | Y |
| | | | | | | | | | | | | | II | | |
| | | | | | | | | | | | | | IIIa | | |
| | | | | | | | | | | | | | IIIb | | |
| | | | | | | | | | | | | | IVa | | |
| | 11 | Glencliff Home for the Elderly<br>Glencliff, NH 03238 | R | 0156-001 | 179-02 | 179-03 | 3 | | Treatment | 0.148 | 0.234 | 0.175 | IVb 0.036 | B | Y |
| | | | | | | | | | | | | | V | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 | Town of Conway<br>Town Office<br>Ctr. Conway, NH 03813 | | -002<br>0010-001 | 227-01 | 227-02 | 2 | | Treatment and Interceptors | | 0.475 | 0.356 | I<br>II 0.331<br>IIIa<br>IIIb<br>IVa<br>IVb 0.144<br>V | B<br>B | Y<br>Y |
| | 11 | Town of Conway<br>Town Office<br>Ctr. Conway, NH 03813 | | -002<br>0010-001 | 227-02 | 227-03 | 3 | | Treatment and Interceptors | | 4.275 | 3.206 | I<br>II 2.971<br>IIIa<br>IIIb<br>IVa<br>IVb 1.304<br>V | B<br>B | Y<br>Y |
| | 10 | Town of Rye<br>10 Central Street<br>Rye, NH 03870 | | 0085-001 | P-001<br>11201 | 230-01 | 1 | | Facilities Plan | 0.052 | 0.102 | 0.076 | I 0.070<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.032<br>V | B<br>B | Y<br>Y |
| | 10 | Town of Rye<br>10 Central Street<br>Rye, NH 03870 | | 0085-001 | 230-01 | 230-02 | 2 | | Treatment and Interceptors | 0.174 | 0.335 | 0.251 | I 0.232<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.103<br>V 4.639 | B<br>B<br>B | Y<br>Y<br>Y |
| | 10 | Town of Rye<br>10 Central Street<br>Rye, NH 03870 | | 0085-001 | 230-02 | 230-03 | 3 | | Treatment and Interceptors | 3.479 | 6.705 | 5.029 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.066<br>V | B | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10 | Town of Plaistow<br>Main Street<br>Plaistow, NH 03865 | | 0147-001 | P-001<br>11201 | 242-01 | 1 | | Facilities Plan | 0.003 | 0.065 | 0.049 | I<br>II 0.048<br>IIIa<br>IIIb<br>IVa<br>IVb 0.017<br>V | C<br>C | Y<br>Y |
| | 10 | Town of Plaistow<br>Main Street<br>Plaistow, NH 03865 | | 0147-001 | 242-01 | 242-02 | 2 | | Treatment and Interceptors | 0.395 | 0.724 | 0.543 | I<br>II 0.527<br>IIIa<br>IIIb<br>IVa<br>IVb 0.197<br>V | C<br>C | Y<br>Y |
| | 10 | Town of Plaistow<br>Main Street<br>Plaistow, NH 03865 | | 0147-001 | 242-02 | 242-03 | 3 | | Treatment and Interceptors | 3.984 | 7.300 | 5.475 | I<br>II 5.312<br>IIIa<br>IIIb<br>IVa<br>IVb 1.988<br>V | C<br>C | Y<br>Y |
| | 10 | County Commissioners<br>Rockingham County Home<br>Court House<br>Exeter, NH 03833 | | 609<br>0107-01 | 243-01 | 243-02 | 2 | | Treatment | | 0.035 | 0.026 | I<br>II 0.035<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |
| | 10 | County Commissioners<br>Rockingham County Home<br>Court House<br>Exeter, NH 03833 | | 609<br>0107-001 | 243-02 | 243-03 | 3 | | Treatment | | 0.314 | 0.236 | I<br>II 0.314<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | A | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | | Town of Piermont<br>Town Offfice<br>Piermont, NH 03779 | R | 0163-001 | 244-01 | 244-02 | 2 | | Treatment and Interceptors | 0.030 | 0.080 | 0.060 | I 0.040<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | B | Y |
| 10 | | Town of Piermont<br>Town Office<br>Piermont, NH 03779 | R | 0163-001 | 244-02 | 244-03 | 3 | | Treatment and Interceptors | 0.425 | 0.900 | 0.675 | I 0.567<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.333<br>V | B | Y |
| 9 | | Town of Newbury<br>Town Office<br>So. Newbury, NH 03272 | R | 0067-001 | P-001<br>11201 | 229-01 | 1 | | Facilities Plan | 0.030 | 0.056 | 0.042 | I<br>II 0.040<br>IIIa<br>IIIb<br>IVa<br>IVb 0.016<br>V | B | Y |
| 9 | | Town of Newbury<br>Town Office<br>So. Newbury, NH 03272 | R | 0067-001 | 229-01 | 229-02 | 2 | | Treatment and Interceptors | 0.072 | 0.133 | 0.100 | I<br>II 0.097<br>IIIa<br>IIIb<br>IVa<br>IVb 0.036<br>V | B | Y |
| 9 | | Town of Newbury<br>Town Office<br>So. Newbury, NH 03272 | R | 0067-001 | 229-02 | 229-03 | 3 | | Treatment and Interceptors | 1.026 | 1.879 | 1.409 | I<br>II 1.368<br>IIIa<br>IIIb<br>IVa<br>IVb 0.511<br>V | B | Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (H7) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | Town of Mont Vernon<br>Main Street<br>Mont Vernon, NH 03057 | R | 0164-001 | P-001<br>11201 | 245-01 | 1 | | Facilities Plan | 0.107 | 0.176 | 0.132 | I<br>II 0.143<br>IIIa<br>IIIb<br>IVa<br>IVb 0.033<br>V | C<br>C | Y<br>Y |
| | 7 | Town of Mont Vernon<br>Main Street<br>Mont Vernon, NH 03057 | R | 0164-001 | 245-01 | 245-02 | 2 | | Treatment and Interceptors | 0.100 | 0.176 | 0.132 | I<br>II 0.143<br>IIIa<br>IIIb<br>IVa<br>IVb 0.033<br>V | C<br>C | Y<br>Y |
| | 7 | Town of Mont Vernon<br>Main Street<br>Mont Vernon, NH 03057 | R | 0164-001 | 245-02 | 245-03 | 3 | | Treatment and Interceptors | 0.534 | 0.877 | 0.657 | I<br>II 0.713<br>IIIa<br>IIIb<br>IVa<br>IVb 0.164<br>V | C<br>C | Y<br>Y |
| | | Town of Allenstown<br>41 Library Street<br>Suncook, NH 03257 | R | 058<br>0058-001 | P-001<br>11201 | 104-01 | 1 | | Facilities Plan | | 0.047 | 0.035 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.047<br>V | A | Y |
| | | Town of Allenstown<br>41 Library Street<br>Suncook, NH 03257 | R | 058<br>0058-001 | 104-01 | 104-02 | 2 | | Interceptors | | 0.100 | 0.075 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.075<br>V | A | Y |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Allenstown<br>41 Library Street<br>Suncook, NH 03275 | R | 058<br>0058-001 | 104-02 | 104-03 | 3 | | Interceptors | | 0.420 | 0.315 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.420<br>V | | |
| | | Town of Alton<br>Town Office<br>Alton, NH 03809 | R | 0001-001 | P-001<br>07001 | | 2 | | Interceptors | | 0.894 | 0.670 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.894<br>V | | |
| | | Town of Alton<br>Town Office<br>Alton, NH 03809 | R | 0001-001 | | | 3 | | Interceptors | | 8.044 | 6.033 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 8.044<br>V | | |
| | | Town of Amherst<br>Main Street<br>Amherst, NH 03031 | | 0111-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.228 | 0.171 | I<br>II 0.161<br>IIIa<br>IIIb<br>IVa<br>IVb 0.067<br>V | | |
| | | Town of Amherst<br>Main Street<br>Amherst, NH 03031 | | 0111-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.808 | 0.606 | I<br>II 0.572<br>IIIa<br>IIIb<br>IVa<br>IVb 0.236<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Alterm. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (21) Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Amherst<br>Main Street<br>Amherst, NH 03031 | | 0111-00 | | | 3 | | Treatment and Interceptors | | 7.795 | 5.846 | I<br>II 5.515<br>IIIa<br>IIIb<br>IVa<br>IVb 2.280<br>V | |
| | | Town of Andover<br>Town Office<br>Andover, NH 03216 | R | 0059-01 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.072 | 0.054 | I<br>II 0.021<br>IIIa<br>IIIb<br>IVa<br>IVb 0.051<br>V | |
| | | Town of Andover<br>Town Office<br>Andover, NH 03216 | R | 0059-00 | | | 2 | | Treatment and Interceptors | | 0.216 | 0.162 | I<br>II 0.065<br>IIIa<br>IIIb<br>IVa<br>IVb 0.151<br>V | |
| | | Town of Andover<br>Town Office<br>Andover, NH 03216 | R | 0059-00 | | | 3 | | Treatment and Interceptors | | 1.869 | 1.402 | I<br>II 0.569<br>IIIa<br>IIIb<br>IVa<br>IVb 1.300<br>V | |
| | | Town of Ashland<br>Highland Street<br>Ashland, NH 03217 | R | 005<br>0027-00 | P-001<br>07001 | | 1 | | Interceptors | | 0.003 | 0.002 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Ashland<br>Highland Street<br>Ashland, NH 03217 | R | 005<br>0027-00 | | | 2 | | Interceptors | | 0.003 | 0.002 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | |
| | | Town of Ashland<br>Highland Street<br>Ashland, NH 03217 | R | 005<br>0027-00 | | | 3 | | Interceptors | | 0.011 | 0.008 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.011<br>V | |
| | | Town of Atkinson<br>Town Office<br>Atkinson, NH 03811 | R | 0160-00 | P-001<br>05701 | | 1 | | Treatment<br>and<br>Interceptors | | 0.078 | 0.058 | I<br>II 0.028<br>IIIa<br>IIIb<br>IVa<br>IVb 0.050<br>V | |
| | | Town of Atkinson<br>Town Office<br>Atkinson, NH 03811 | R | 0160-00 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.127 | 0.095 | I 0.044<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.083<br>V | |
| | | Town of Atkinson<br>Town Office<br>Atkinson, NH 03811 | R | 0160-00 | | | 3 | | Treatment<br>and<br>Interceptors | | 1.498 | 1.123 | I<br>II 0.629<br>IIIa<br>IIIb<br>IVa<br>IVb 0.869<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Auburn<br>Town Office<br>Auburn, NH 03032 | R | 0073-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.043 | 0.032 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.043<br>V | | |
| | | Town of Auburn<br>Town Office<br>Auburn, NH 03032 | R | 0073-001 | | | 2 | | Interceptors | | 0.089 | 0.067 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.089<br>V | | |
| | | Town of Auburn<br>Town Office<br>Auburn, NH 03032 | R | 0073-001 | | | 3 | | Interceptors | | 2.175 | 1.631 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.175<br>V | | |
| | | Town of Barnstead<br>Town Office<br>Ctr. Barnstead, NH 03225 | R | 0112-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.035 | 0.026 | I 0.013<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.022<br>V | | |
| | | Town of Barnstead<br>Town Office<br>Ctr. Barnstead, NH 03225 | R | 0112-001 | | | 2 | | Interceptors | | 0.075 | 0.056 | I 0.029<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.046<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Barnstead<br>Town Office<br>Ctr. Barnstead, NH 03225 | R | 0112-001 | | | 3 | | Interceptors | | 1.305 | 0.979 | I 0.516<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.789<br>V | | |
| | | Town of Bartlett<br>Box 206<br>Glen, NH 03838 | R | 0113-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.017 | 0.013 | I<br>II 0.016<br>IIIa<br>IIIb<br>IVa<br>IVb 0.001<br>V | | |
| | | Town of Bartlett<br>Box 206<br>Glen, NH 03838 | R | 0113-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.034 | 0.026 | I<br>II 0.032<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |
| | | Town of Bartlett<br>Box 206<br>Glen, NH 03838 | R | 0113-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 0.660 | 0.495 | I<br>II<br>IIIa 0.608<br>IIIb<br>IVa<br>IVb 0.052<br>V | | |
| | | Town of Boscawen<br>Town Office<br>Boscawen, NH 03301 | R | 528<br>0060-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.026 | 0.020 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.026<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Boscawen<br>Town Office<br>Boscawen, NH 03301 | R | 528 / 0060-001 | | | 2 | | Interceptors | | 0.214 | 0.161 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.214<br>V | | |
| | | Town of Boscawen<br>Town Office<br>Boscawen, NH 03301 | R | 528 / 0060-001 | | | 3 | | Interceptors | | 1.902 | 1.427 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.902<br>V | | |
| | | Town of Bradford<br>Town Office<br>Bradford, NH 03221 | R | 0115-001 | P-001<br>11201 | 176-01 | 1 | | Treatment<br>and<br>Interceptors | | 0.033 | 0.025 | I 0.012<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.021<br>V | | |
| | | Town of Bradford<br>Town Office<br>Bradford, NH 03221 | R | 0115-001 | 176-01 | 176-02 | 2 | | Treatment<br>and<br>Interceptors | | 0.080 | 0.060 | I 0.029<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.051<br>V | | |
| | | Town of Bradford<br>Town Office<br>Bradford, NH 03221 | R | 0115-01 | 176-02 | 176-03 | 3 | | Treatment<br>and<br>Interceptors | | 1.582 | 1.187 | I 0.579<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.003<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 14, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Bridgewater<br>Star Route<br>Bristol, NH 03222 | R | 0116-00 | P-001<br>11201 | 149-01 | 2 | | Interceptors | | 0.076 | 0.057 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.076<br>V | |
| | | Town of Bridgewater<br>Star Route<br>Bristol, NH 03222 | R | 0116-00 | 149-01 | 149-02 | 3 | | Interceptors | | 0.880 | 0.660 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.880<br>V | |
| | | Town of Bristol<br>71 Lake Street<br>Bristol, NH 03222 | R | 0029-01 | P-001<br>11201 | | 2 | | Treatment<br>Expansion<br>& Interceptors | | 0.192 | 0.144 | I 0.072<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.120<br>V | |
| | | Town of Bristol<br>71 Lake Street<br>Bristol, NH 03222 | R | 021<br>0029-00 | | | 3 | | Treatment<br>Expansion &<br>Interceptors | | 2.666 | 2.000 | I 1.008<br>II<br>IIIa 0.001<br>IIIb<br>IVa<br>IVb 1.657<br>V | |
| | | Town of Brookfield<br>RFD<br>Sanbornville, NH 03872 | R | 0181-00 | P-001<br>11201 | | 1 | | Interceptors | | 0.039 | 0.029 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.039<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Brookfield<br>RFD<br>Sanbornville, NH 03872 | R | 0181-001 | | | 2 | | Interceptors | | 0.096 | 0.072 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.096<br>V | |
| | | Town of Brookfield<br>RFD<br>Sanbornville, NH 03872 | R | 0181-001 | | | 3 | | Interceptors | | 0.821 | 0.616 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.821<br>V | |
| | | Town of Brookline<br>Main Street<br>Brookline, NH 03033 | R | 0176-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.043 | 0.032 | I 0.035<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.008<br>V | |
| | | Town of Brookline<br>Main Street<br>Brookline, NH 03033 | R | 0176-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.204 | 0.153 | I 0.165<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.039<br>V | |
| | | Town of Brookline<br>Main Street<br>Brookline, NH 03033 | R | 0176-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 1.794 | 1.346 | I 1.453<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.341<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Campton<br>Drawer A<br>Campton, NH 03223 | R | 0118-00 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.035 | 0.026 | I 0.013<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.022<br>V | |
| | | Town of Campton<br>Drawer A<br>Campton, NH 03223 | R | 0118-00 | | | 2 | | Treatment and Interceptors | | 0.083 | 0.062 | I 0.032<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.051<br>V | |
| | | Town of Campton<br>Drawer A<br>Campton, NH 03223 | R | 0118-00 | | | 3 | | Treatment and Interceptors | | 1.602 | 1.202 | I 0.629<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.973<br>V | |
| | | Town of Candia<br>Town Office<br>Candia, NH 03034 | R | 0119-00 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.066 | 0.050 | I 0.020<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.046<br>V | |
| | | Town of Candia<br>Town Office<br>Candia, NH 03034 | R | 0119-00 | | | 2 | | Treatment and Interceptors | | 0.158 | 0.119 | I<br>II 0.048<br>IIIa<br>IIIb<br>IVa<br>IVb 0.110<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (MB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y6) Innov. % / Altern. % | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (71) Total Eligible by Needs Categories (mil. of dollars) (70) - (76) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Candia<br>Town Office<br>Candia, NH 03034 | R | 0119-01 | | | 3 | | Treatment and Interceptors | | 3.705 | 2.824 | I<br>II 1.157<br>IIIa<br>IIIb<br>IVa<br>IVb 2.608<br>V | | |
| | | Town of Danville<br>Main Street<br>Danville, NH 03819 | R | 0121-00 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.045 | 0.034 | I 0.037<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.008<br>V | | |
| | | Town of Danville<br>Main Street<br>Danville, NH 03819 | R | 0121-00 | | | 2 | | Treatment and Interceptors | | 0.073 | 0.065 | I 0.060<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.013<br>V | | |
| | | Town of Danville<br>Main Street<br>Danville, NH 03819 | R | 0121-00 | | | 3 | | Treatment and Interceptors | | 1.682 | 1.261 | I 1.369<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.313<br>V | | |
| | | Town of Deerfield<br>Town Office<br>Deerfield, NH 03037 | R | 0169-00 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.031 | 0.023 | I 0.029<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant Appl. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Deerfield<br>Town Office<br>Deerfield, NH 03037 | R | 0169-001 | | | 2 | | Treatment and Interceptors | | 0.070 | 0.053 | I 0.067<br>IIa<br>IIb<br>IVa<br>IVb 0.003<br>V | | |
| | | Town of Deerfield<br>Town Office<br>Deerfield, NH 03037 | R | 0169-001 | | | 3 | | Treatment and Interceptors | | 0.673 | 0.505 | I 0.636<br>IIa<br>IIb<br>IVa<br>IVb 0.037<br>V | | |
| | | Town of Dublin<br>Town Office<br>Dublin, NH 03444 | R | 0122-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.045 | 0.034 | I 0.016<br>IIa<br>IIb<br>IVa<br>IVb 0.029<br>V | | |
| | | Town of Dublin<br>Town Office<br>Dublin, NH 03444 | R | 0122-001 | | | 2 | | Treatment and Interceptors | | 0.095 | 0.071 | I 0.035<br>IIa<br>IIb<br>IVa<br>IVb 0.060<br>V | | |
| | | Town of Dublin<br>Town Office<br>Dublin, NH 03444 | R | 0122-001 | | | 3 | | Treatment and Interceptors | | 1.652 | 1.239 | I 0.605<br>IIa<br>IIb<br>IVa<br>IVb 1.047<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,S1,14,S2) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,S4) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Dunbarton<br>RFD #2<br>Concord, NH 03301 | R | -002<br>0123-000 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.044 | 0.033 | I<br>II<br>IIIa 0.005<br>IIIb<br>IVa<br>IVb<br>V 0.039 | | |
| | | Town of Dunbarton<br>RFD #2<br>Concord, NH 03301 | R | 0123-002 | | | 2 | | Treatment and Interceptors | | 0.151 | 0.113 | I<br>II 0.017<br>IIIa<br>IIIb<br>IVa<br>IVb 0.134<br>V | | |
| | | Town of Dunbarton<br>RFD #2<br>Concord, NH 03301 | R | 0123-002 | | | 3 | | Treatment and Interceptors | | 1.309 | 0.988 | I<br>II 0.148<br>IIIa<br>IIIb<br>IVa<br>IVb 1.161<br>V | | |
| | | Town of Effingham<br>Town Office<br>So. Effingham, NH 03882 | R | 0124-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.041 | 0.031 | I 0.011<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.030<br>V | | |
| | | Town of Effingham<br>Town Office<br>So. Effingham, NH 03882 | R | 0124-001 | | | 2 | | Treatment and Interceptors | | 0.087 | 0.065 | I 0.024<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.063<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Effingham<br>Town Office<br>So. Effingham, NH 03882 | R | 0124-001 | | | 3 | | Treatment and Interceptors | | 1.347 | 1.010 | I 0.363<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.984<br>V | | |
| | | Town of Epping<br>Town Office<br>Epping, NH 03042 | R | 692<br>0075-001 | 247-01 | 247-02 | 2 | | Treatment Expansion & Interceptors | | 0.097 | 0.073 | I 0.056<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.041<br>V | | |
| | | Town of Epping<br>Town Office<br>Epping, NH 03042 | R | 692<br>0075-001 | 247-02 | 247-03 | 3 | | Treatment, Expansion Interceptors | | 1.764 | 1.323 | I 1.021<br>II<br>IIIa 0.002<br>IIIb<br>IVa<br>IVb 0.741<br>V | | |
| | | Town of Epsom<br>Town Office<br>Epsom, NH 03234 | R | 0125-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.024 | 0.018 | I 0.012<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.012<br>V | | |
| | | Town of Epsom<br>Town Office<br>Epsom, NH 03234 | R | 0125-001 | | | 2 | | Treatment and Interceptors | | 0.063 | 0.047 | I 0.032<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.031<br>V | | |

EXTENDED LIST B - AFTER FY 1984
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State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Epsom<br>Town Office<br>Epsom, NH 03234 | R | 0125-001 | | | 3 | | Treatment and Interceptors | | 1.245 | 0.934 | I 0.632<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.613<br>V | |
| | | Town of Errol<br>Town Office<br>Errol, NH 03579 | R | 0126-001 | P-001<br>11201 | | 2 | | Treatment and Interceptors | | 0.010 | 0.008 | I 0.005<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.005<br>V | |
| | | Town of Errol<br>Town Office<br>Errol, NH 03579 | R | 0126-001 | | | 3 | | Treatment and Interceptors | | 0.147 | 0.110 | I 0.081<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.066<br>V | |
| | | Town of Farmington<br>Main Street<br>Farmington, NH 03835 | | 854<br>0090-01 | P-001<br>11201 | | 1 | | Treatment, Expansion & Interceptors | | 0.040 | 0.030 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | |
| | | Town of Farmington<br>Main Street<br>Farmington, NH 03835 | | 854<br>0090-001 | | | 2 | | Treatment, Expansion & Interceptors | | 0.068 | 0.051 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.068<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Farmington<br>Main Street<br>Farmington, NH 03835 | | 854 / 0090-001 | | | 3 | | Treatment, Expansion & Interceptors | | 0.422 | 0.316 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 0.422 | | |
| | | Town of Fitzwilliam<br>Town Office<br>Fitzwilliam, NH 03447 | R | 0014-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.046 | 0.035 | I<br>II 0.020<br>IIIa<br>IIIb<br>IVa<br>IVb 0.026<br>V | | |
| | | Town of Fitzwilliam<br>Town Office<br>Fitzwilliam, NH 03447 | R | 0014-001 | | | 2 | | Treatment and Interceptors | | 0.117 | 0.088 | I<br>II 0.049<br>IIIa<br>IIIb<br>IVa<br>IVb 0.068<br>V | | |
| | | Town of Fitzwilliam<br>Town Office<br>Fitzwilliam, NH 03447 | R | 0014-001 | | | 3 | | Treatment and Interceptors | | 2.378 | 1.784 | I<br>II 1.008<br>IIIa<br>IIIb<br>IVa<br>IVb 1.370<br>V | | |
| | | Town of Francestown<br>Town Office<br>Francestown, NH 03048 | R | 0127-001 | P001<br>11201 | | 1 | | Treatment and Interceptor | | 0.023 | 0.017 | I<br>II 0.009<br>IIIa<br>IIIb<br>IVa<br>IVb 0.014<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Francestown<br>Town Office<br>Francestown, NH 03043 | R | 0127-001 | | | 2 | | Treatment and Interceptors | | 0.060 | 0.045 | I<br>II<br>IIIa 0.025<br>IIIb<br>IVa<br>IVb<br>V 0.035 | | |
| | | Town of Francestown<br>Town Office<br>Francestown, NH 03043 | R | 0127-001 | | | 3 | | Treatment and Interceptors | | 1.182 | 0.886 | I<br>II 0.509<br>IIIa<br>IIIb<br>IVa<br>IVb 0.673<br>V | | |
| | | Town of Franconia<br>Main Street<br>Franconia, NH 03580 | R | 0032-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.028 | 0.021 | I<br>II 0.011<br>IIIa<br>IIIb<br>IVa<br>IVb 0.017<br>V | | |
| | | Town of Franconia<br>Main Street<br>Franconia, NH 03580 | R | 0032-001 | | | 2 | | Treatment and Interceptors | | 0.069 | 0.052 | I<br>II 0.028<br>IIIa<br>IIIb<br>IVa<br>IVb 0.041<br>V | | |
| | | Town of Franconia<br>Main Street<br>Franconia, NH 03580 | R | 0032-001 | | | 3 | | Treatment and Interceptors | | 1.423 | 1.067 | I<br>II 0.564<br>IIIa<br>IIIb<br>IVa<br>IVb 0.859<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-D | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Gilmanton<br>Town Office<br>Gilmanton I.W., NH 03837 | R | -002<br>0128-003 | P-001<br>07001 | | 1 | | Treatment and Interceptors | | 0.043 | 0.032 | I<br>II 0.015<br>IIIa<br>IIIb<br>IVa<br>IVb 0.028<br>V | |
| | | Town of Gilmanton<br>Town Office<br>Gilmanton I.W., NH 03837 | R | -002<br>0128-003 | | | 2 | | Treatment and Interceptors | | 0.108 | 0.081 | I<br>II 0.037<br>IIIa<br>IIIb<br>IVa<br>IVb 0.071<br>V | |
| | | Town of Gilmanton<br>Town Office<br>Gilmanton I.W., NH 03837 | R | -002<br>0128-003 | | | 3 | | Treatment and Interceptors | | 2.279 | 1.709 | I<br>II 0.789<br>IIIa<br>IIIb<br>IVa<br>IVb 1.490<br>V | |
| | | Town of Greenland<br>Portsmouth Avenue<br>Greenland, NH 03840 | R | 0130-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.039 | 0.029 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.039<br>V | |
| | | Town of Greenland<br>Portsmouth Avenue<br>Greenland, NH 03840 | R | 0130-001 | | | 2 | | Interceptors | | 0.098 | 0.073, | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.098<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Greenland<br>Portsmouth Avenue<br>Greenland, NH 03840 | R | 0130-001 | | | 3 | | Interceptors | | 1.969 | 1.477 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 1.969<br>V | |
| | | Town of Hampstead<br>Main Street<br>Hampstead, NH 03841 | R | 0157-001 | P-001<br>05701 | | 1 | | Treatment<br>and<br>Interceptors | | 0.078 | 0.059 | I 0.037<br>II<br>IIIa<br>IIIb<br>IVa 0.041<br>IVb<br>V | |
| | | Town of Hampstead<br>Main Street<br>Hampstead, NH 03841 | R | 0157-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.360 | 0.270 | I 0.171<br>II<br>IIIa<br>IIIb<br>IVa 0.189<br>IVb<br>V | |
| | | Town of Hampstead<br>Main Street<br>Hampstead, NH 03841 | R | 0157-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 6.790 | 5.092 | I 3.216<br>II<br>IIIa<br>IIIb<br>IVa 3.574<br>IVb<br>V 0.017 | |
| | | Town of Hampton Falls<br>Town Office<br>Hampton Fall,s NH 03844 | R | 0131-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.022 | 0.017 | I<br>II<br>IIIa<br>IIIb<br>IVa 0.005<br>IVb<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
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State: New Hampshire



| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Hampton Falls<br>Town Office<br>Hampton Falls, NH 03844 | R | 0131-001 | | | 2 | | Interceptors | | 0.053 | 0.040 | I 0.040<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.013<br>V | | |
| | | Town of Hampton Falls<br>Town Office<br>Hampton Falls, NH 03844 | R | 0131-001 | | | 3 | | Interceptors | | 0.757 | 0.568 | I 0.561<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.196<br>V | | |
| | | Town of Hancock<br>School Street<br>Hancock, NH 03449 | R | 0178-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.024 | 0.018 | I<br>II 0.023<br>IIIa<br>IIIb<br>IVa<br>IVb 0.001<br>V | | |
| | | Town of Hancock<br>School Street<br>Hancock, NH 03449 | R | 0178-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.071 | 0.053 | I<br>II 0.065<br>IIIa<br>IIIb<br>IVa<br>IVb 0.006<br>V | | |
| | | Town of Hancock<br>School Street<br>Hancock, NH 03449 | R | 0178-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 0.608 | 0.456 | I<br>II 0.568<br>IIIa<br>IIIb<br>IVa<br>IVb 0.040<br>V | | |

EXTENDED LIST B - AFTER FY 1984
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April 13, 1979
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State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Hill<br>Crescent Street<br>Hill, NH 03243 | R | 0171-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.022 | 0.017 | I 0.021<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.001<br>V | | |
| | | Town of Hill<br>Crescent Street<br>Hill, NH 03243 | R | 0171-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.042 | 0.032 | I 0.039<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | | |
| | | Town of Hill<br>Crescent Street<br>Hill, NH 03243 | R | 0171-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 0.225 | 0.169 | I 0.208<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.017<br>V | | |
| | | Town of Hollis<br>Town Office<br>Hollis, NH 03049 | R | 0175-001 | P-001<br>11201 | | 1 | | Interceptors | | 0.031 | 0.023 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.031<br>V | | |
| | | Town of Hollis<br>Town Office<br>Hollis, NH 03049 | R | 0175-001 | | | 2 | | Interceptors | | 0.065 | 0.049 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.065<br>V | | |

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State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Hollis<br>Town Office<br>Hollis, NH 03049 | R | 0175-00 | | | 3 | | Interceptors | | 0.548 | 0.411 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.548<br>V | | |
| | | Town of Jackson<br>Town Office<br>Jackson, NH 03846 | R | 0135-00 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.019 | 0.014 | I<br>II 0.017<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |
| | | Town of Jackson<br>Town Office<br>Jackson, NH 03846 | R | 0135-00 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.042 | 0.032 | I<br>II 0.040<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |
| | | Town of Jackson<br>Town Office<br>Jackson, NH 03846 | R | 0135-00 | | | 3 | | Treatment<br>and<br>Interceptors | | 0.655 | 0.491 | I<br>II 0.601<br>IIIa<br>IIIb<br>IVa<br>IVb 0.054<br>V | | |
| | | Town of Jefferson<br>Route #2<br>Jefferson, NH 03583 | R | 0177-00 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.017 | 0.013 | I 0.015<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Jefferson<br>Route #2<br>Jefferson, NH 03583 | R | 0177-001 | | | 2 | | Treatment and Interceptors | | 0.030 | 0.023 | I 0.027<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | | |
| | | Town of Jefferson<br>Route #2<br>Jefferson, NH 03583 | R | 0177-00 | | | 3 | | Treatment and Interceptors | | 0.178 | 0.134 | I 0.156<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.022<br>V | | |
| | | Town of Kingston<br>Main Street<br>Kingston, NH 03848 | | 0138-00 | P-001<br>05701 | | 1 | | Treatment and Interceptors | | 0.077 | 0.058 | I<br>II 0.049<br>IIIa<br>IIIb<br>IVa<br>IVb 0.028<br>V | | |
| | | Town of Kingston<br>Main Street<br>Kingston, NH 03848 | | 0138-00 | | | 2 | | Treatment and Interceptors | | 0.191 | 0.143 | I<br>II 0.120<br>IIIa<br>IIIb<br>IVa<br>IVb 0.071<br>V | | |
| | | Town of Kingston<br>Main Street<br>Kingston, NH 03848 | | 0138-00 | | | 3 | | Treatment and Interceptors | | 4.217 | 3.163 | I<br>II 2.667<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V 1.550 | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Litchfield<br>RFD #1<br>Hudson, NH 03051 | R | 0139-00 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.038 | 0.029 | I 0.031<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.007<br>V | | |
| | | Town of Litchfield<br>RFD #2<br>Hudson, NH 03051 | R | 0139-00 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.216 | 0.162 | I 0.175<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.041<br>V | | |
| | | Town of Litchfield<br>RFD #2<br>Hudson, NH 03051 | R | 0139-00 | | | 3 | | Treatment<br>and<br>Interceptors | | 1.937 | 1.453 | I 1.565<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.372<br>V | | |
| | | Town of Lyme<br>Town Office<br>Lyme, NH 03768 | R | 0165-00 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.021 | 0.016 | I 0.009<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.012<br>V | | |
| | | Town of Lyme<br>Town Office<br>Lyme, NH 03768 | R | 0165-00 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.044 | 0.033 | I 0.019<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.025<br>V | | |



69-985 O—80——39

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979

State: New Hampshire



| (59) Priority Rank | (HB) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Kind of Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A6) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. % / Altern. % | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (21) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Lyme<br>Town Office<br>Lyme, NH 03768 | R | 0165-00 | | | 3 | | Treatment and Interceptors | | 0.449 | 0.337 | 0.196<br>I<br>IIIa<br>IIIb<br>Va<br>Vb 0.253<br>VI | | |
| | | Town of Milan<br>Town Office<br>Milan, NH 03588 | R | 0167-00 | P-001 11201 | | 1 | | Interceptors | | 0.025 | 0.019 | I<br>IIIa<br>IIIb<br>Va<br>Vb 0.025<br>VI | | |
| | | Town of Milan<br>Town Office<br>Milan, NH 03588 | R | 0167-00 | | | 2 | | Interceptors | | 0.089 | 0.067 | I<br>IIIa<br>IIIb<br>Va<br>Vb 0.089<br>VI | | |
| | | Town of Milan<br>Town Office<br>Milan, NH 03588 | R | 0167-00 | | | 3 | | Interceptors | | 0.752 | 0.564 | I<br>IIIa<br>IIIb<br>Va<br>Vb 0.752<br>VI | | |
| | | Town of New Boston<br>Town Office<br>New Boston, NH 03070 | R | 0180-00 | P-001 11201 | | 1 | | Treatment and Interceptors | | 0.024 | 0.018 | 0.016<br>I<br>IIIa<br>IIIb<br>Va<br>Vb 0.008<br>VI | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 18, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (21) Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of New Boston<br>Town Office<br>New Boston, NH 03070 | R | 0180-00 | | | 2 | | Treatment and Interceptors | | 0.053 | 0.039 | I 0.036<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.017<br>V | |
| | | Town of New Boston<br>Town Office<br>New Boston, NH 03070 | R | 0180-00 | | | 3 | | Treatment and Interceptors | | 0.380 | 0.285 | I 0.257<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.123<br>V | |
| | | Town of New Castle<br>Main Street<br>New Castle, NH 03854 | R | 323<br>0079-00 | 133-01 | 133-02 | 2 | | Interceptors | | 0.101 | 0.076 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.101<br>V | |
| | | Town of New Castle<br>Main Street<br>New Castle, NH 03854 | R | 323<br>0079-00 | 133-01 | 133-03 | 3 | | Interceptors | | 0.913 | 0.684 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.913<br>V | |
| | | Town of New Ipswich<br>Town Office<br>New Ipswich, NH 03071 | R | 0179-00 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.025 | 0.019 | I 0.023<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (21) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of New Ipswich<br>Town Office<br>New Ipswich, NH 03071 | R | 0179-00 | | | 2 | | Treatment and Interceptors | | 0.129 | 0.097 | I<br>II 0.119<br>IIIa<br>IIIb<br>IVa<br>IVb 0.010<br>V | | |
| | | Town of New Ipswich<br>Town Office<br>New Ipswich, NH 03071 | R | 0179-00 | | | 3 | | Treatment and Interceptors | | 1.145 | 0.859 | I<br>II 1.055<br>IIIa<br>IIIb<br>IVa<br>IVb 0.090<br>V | | |
| | | Town of Newton<br>Main Street<br>Newton, NH 03858 | R | 0158-00 | P-001<br>05701 | | 1 | | Treatment and Interceptors | | 0.059 | 0.044 | I<br>II 0.045<br>IIIa<br>IIIb<br>IVa<br>IVb 0.014<br>V | | |
| | | Town of Newton<br>Main Street.<br>Newton, NH 03858 | R | 0158-00 | | | 2 | | Treatment and Interceptors | | 0.150 | 0.113 | I<br>II 0.115<br>IIIa<br>IIIb<br>IVa<br>IVb 0.036<br>V | | |
| | | Town of Newton<br>Main Street<br>Newton, NH 03858 | R | 0158-00 | | | 3 | | Treatment and Interceptors | | 2.951 | 2.213 | I<br>II 2.253<br>IIIa<br>IIIb<br>IVa<br>IVb 0.698<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| Priority Rank (59) | Priority Points (H8) | Applicant Legal Name / Street Address / City, Zip Code (12,51,14,52) | Rural or Dispersed (33) | NPDES #0100 / Needs #33-0 (C2)/(32) | Parent No. C-330- (B2) | Project Serial Sequence No. C-330- (01,54) | Project Step (B7) | Grant App. Target Date (A5) | Description of Project (20) | Innov. $ / Alterm. $ (Y7)/(Y8) | Total Eligible Cost (mil. of dollars) (29) | Est. EPA Asst. (mil. of dollars) (19) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) (21) | Enforceable Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of North Hampton<br>Atlantic Avenue<br>No. Hampton, NH03862 | R | 0168-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.052 | 0.039 | I 0.032<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.020<br>V | |
| | | Town of North Hampton<br>Atlantic Avenue<br>No. Hampton, NH 03862 | R | 0168-001 | | | 2 | | Treatment and Interceptors | | 0.517 | 0.388 | I 0.324<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.193<br>V | |
| | | Town of North Hampton<br>Atlantic Avenue<br>No. Hampton, NH 03862 | R | 0168-001 | | | 3 | | Treatment and Interceptors | | 5.610 | 4.208 | I 3.513<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 2.097<br>V | |
| | | Town of Northwood<br>Route #4<br>Northwood, NH 03261 | R | -001<br>0170-002 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.045 | 0.034 | I 0.016<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.029<br>V | |
| | | Town of Northwood<br>Route #4<br>Northood, NH 03261 | R | -001<br>0170-002 | | | 2 | | Treatment and Interceptors | | 0.111 | 0.083 | I 0.037<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.074<br>V | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979


State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | (Z1) Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Northwood<br>Route #4<br>Northwood, NH 03261 | | -001<br>0170-002 | | | 3 | | Treatment and Interceptors | | 4.676 | 3.507 | I 1.601<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 3.075<br>V | | |
| | | Town of Orford<br>Town Office<br>Orfordville, NH 03777 | R | 0144-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.008 | 0.006 | I 0.007<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.001<br>V | | |
| | | Town of Orford<br>Town Office<br>Orfordville, NH 03777 | R | 0144-001 | | | 2 | | Treatment and Interceptors | | 0.021 | 0.016 | I 0.019<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |
| | | Town of Orford<br>Town Office<br>Orfordville, NH 03777 | R | 0144-001 | | | 3 | | Treatment and Interceptors | | 0.231 | 0.173 | I 0.205<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.026<br>V | | |
| | | Town of Pembroke<br>Union Street<br>Suncook, NH 03275 | | 722<br>0070-001 | 105-01 | 105-02 | 2 | | Interceptors | | 0.178 | 0.134 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.178<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name / Street Address / City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Pembroke<br>Union Street<br>Suncook, NH 03275 | | 0070-001 | 105-02 | 105-03 | 3 | | Interceptors | | 4.256 | 3.192 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.256<br>V | | |
| | | Town of Peterborough<br>One Grove Street<br>Peterborough, NH 03458 | | 650<br>0055-001 | P-001<br>11201 | | 1 | | Treatment, Expansion, & Interceptors | | 0.018 | 0.014 | I 0.011<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.007<br>V | | |
| | | Town of Peterborough<br>One Grove Street<br>Peterborough, NH 03458 | | 650<br>0055-001 | | | 2 | | Treatment, Expansion Interceptors | | 0.072 | 0.054 | I 0.043<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.029<br>V | | |
| | | Town of Peterborough<br>One Grove Street<br>Peterborough, NH 03458 | | 650<br>0055-001 | | | 3 | | Treatment, Expansion & Interceptors | | 0.904 | 0.678 | I 0.541<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.363<br>V | | |
| | | Town of Sandown<br>P.O. Box 77<br>Sandown, NH 03873 | R | 0159-001 | P-001<br>11201 | | 1 | | Tratment and Interceptors | | 0.044 | 0.033 | I<br>II 0.028<br>IIIa<br>IIIb<br>IVa<br>IVb 0.016<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979


State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (82) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (87) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Sandown<br>P.O. Box 77<br>Sandown, NH 03873 | R | 0159-001 | | | 2 | | Treatment and Interceptors | | 0.164 | 0.123 | I 0.107<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.057<br>V | | |
| | | Town of Sandown<br>P.O. Box 77<br>Sandown, NH 03873 | R | 0159-001 | | | 3 | | Treatment and Interceptors | | 2.334 | 1.751 | I 1.519<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.815<br>V | | |
| | | Town of Stoddard<br>Town Office<br>Stoddard, NH 03464 | R | 0166-001 | | | 1 | | Treatment and Interceptors | | 0.046 | 0.035 | I 0.017<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.029<br>V | | |
| | | Town of Stoddard<br>Town Office<br>Stoddard, NH 03464 | R | 0166-001 | | | 2 | | Treatment and Interceptors | | 0.094 | 0.071 | I 0.036<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.058<br>V | | |
| | | Town of Stoddard<br>Town Office<br>Stoddard, NH 03464 | R | 0166-00 | | | 3 | | Treatment and Interceptors | | 0.692 | 0.519 | I 0.267<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.425<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979


State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Stratham<br>151 Portsmouth Avenue<br>Stratham, NH 03885 | R | 0148-001 | P-001<br>11201 | | 1 | | Treatment<br>and<br>Interceptors | | 0.032 | 0.024 | I 0.028<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.004<br>V | | |
| | | Town of Stratham<br>151 Portsmouth Avenue<br>Stratham, NH 03885 | R | 0148-001 | | | 2 | | Treatment<br>and<br>Interceptors | | 0.088 | 0.066 | I 0.075<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.013<br>V | | |
| | | Town of Stratham<br>151 Portsmouth Avenue<br>Stratham, NH 03885 | R | 0148-001 | | | 3 | | Treatment<br>and<br>Interceptors | | 1.114 | 0.836 | V 0.953<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.161<br>V | | |
| | | Town of Sutton<br>Town Office<br>Sutton, NH 03221 | R | -001<br>0172-002 | P-001<br>11201 | 232-01 | 1 | | Treatment<br>and<br>Interceptors | | 0.036 | 0.027 | I<br>II 0.033<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | | |
| | | Town of Sutton<br>Town Office<br>Sutton, NH 03221 | R | -001<br>0172-002 | 232-01 | 232-02 | 2 | | Treatment<br>and<br>Interceptors | | 0.067 | 0.050 | I<br>II 0.063<br>IIIa<br>IIIb<br>IVa<br>IVb 0.004<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | (Z1) Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Sutton<br>Town Office<br>Sutton, NH 03221 | R | -001<br>172-002 | 232-02 | 232-03 | 3 | | Treatment and Interceptors | | 0.609 | 0.457 | I<br>II 0.575<br>IIIa<br>IIIb<br>IVa<br>IVb 0.034<br>V | | |
| | | Town of Tuftonboro<br>Town Office<br>Tuftonboro, NH 03816 | R | 012-001 | P-001<br>07001 | | 1 | | Treatment and Interceptors | | 0.094 | 0.071 | I<br>II 0.031<br>IIIa<br>IIIb<br>IVa<br>IVb 0.063<br>V | | |
| | | Town of Tuftonboro<br>Town Office<br>Tuftonboro, NH 03816 | R | 012-001 | | | 2 | | Treatment and Interceptor | | 0.410 | 0.308 | I<br>II 0.136<br>IIIa<br>IIIb<br>IVa<br>IVb 0.274<br>V | | |
| | | Town of Tuftonboro<br>Town Office<br>Tuftonboro, NH 03816 | R | 012-001 | | | 3 | | Treatment and Interceptors | | 5.869 | 4.402 | I<br>II 1.940<br>IIIa<br>IIIb<br>IVa<br>IVb 3.929<br>V | | |
| | | Town of Moultonboro<br>Box 15<br>Moultonboro, NH 03254 | R | (see<br>003-001) | P-001<br>07001 | | 1 | | Treatment and Interceptors | | 0.100 | 0.075 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.100<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Moultonboro<br>Box 15<br>Moultonboro, NH 03254 | R | (see 003-001) | | | 2 | | Treatment and Interceptors | | 0.249 | 0.186 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.249<br>V | | |
| | | Town of Moultonboro<br>Box 15<br>Moultonboro, NH 03254 | R | (see 003-001) | | | 3 | | Treatment and Interceptors | | 4.636 | 3.477 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 4.636<br>V | | |
| | | Town of Waterville Valley<br>Town Office<br>Waterville Valley, NH 03223 | R | 781 / 0042-001 | P-001 11201 | | 1 | | Interceptors | | 0.004 | 0.003 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.004<br>V | | |
| | | Town of Waterville Valley<br>Town Office<br>Waterville Valley, NH 03223 | R | 781 / 0042-01 | | | 2 | | Interceptors | | 0.017 | 0.013 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.017<br>V | | |
| | | Town of Waterville Valley<br>Town Office<br>Waterville Valley, NH 03223 | R | 781 / 0042-00 | | | 3 | | Interceptors | | 0.289 | 0.217 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.289<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979


State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Webster<br>RFD #5<br>Penacook, NH 03301 | R | 0173-001 | P-001<br>11201 | | 1 | | Treatment and Interceptors | | 0.030 | 0.022 | I<br>II 0.028<br>IIIa<br>IIIb<br>IVa<br>IVb 0.002<br>V | | |
| | | Town of Webster<br>RFD #5<br>Penacook, NH 03301 | R | 0173-001 | | | 2 | | Treatment and Interceptors | | 0.062 | 0.047 | I<br>II 0.059<br>IIIa<br>IIIb<br>IVa<br>IVb 0.003<br>V | | |
| | | Town of Webster<br>RFD #5<br>Penacook, NH 03301 | R | 0173-001 | | | 3 | | Treatment and Interceptors | | 0.608 | 0.456 | I<br>II 0.571<br>IIIa<br>IIIb<br>IVa<br>IVb 0.037<br>V | | |
| | | Town of Windham<br>Town Office<br>Windham, NH 03087 | | 0154-001 | P-001<br>05701 | | 1 | | Treatment and Interceptors | | 0.072 | 0.054 | I<br>II 0.033<br>IIIa<br>IIIb<br>IVa<br>IVb 0.039<br>V | | |
| | | Town of Windham<br>Town Office<br>Windham, NH 03087 | | 0154-001 | | | 2 | | Treatment and Interceptors | | 0.274 | 0.206 | I<br>II 0.127<br>IIIa<br>IIIb<br>IVa<br>IVb 0.147<br>V | | |

EXTENDED LIST B - AFTER FY 1984
CONSTRUCTION GRANTS PROJECT LIST

April 13, 1979
August 8, 1979



State: New Hampshire

| (59) Priority Rank | (H8) Priority Points | (12,51,14,52) Applicant Legal Name Street Address City, Zip Code | (33) Rural or Dispersed | (C2)/(32) NPDES #0100 / Needs #33-0 | (B2) Parent No. C-330- | (01,54) Project Serial Sequence No. C-330- | (B7) Project Step | (A5) Grant App. Target Date | (20) Description of Project | (Y7)/(Y8) Innov. $ / Altern. $ | (29) Total Eligible Cost (mil. of dollars) | (19) Est. EPA Asst. (mil. of dollars) | (Z1) Total Eligible by Needs Categories (mil. of dollars) (Y0) - (Y6) | Enforceable | Requirement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Town of Windham<br>Town Office<br>Windham, NH 03087 | | 0154-001 | | | 3 | | Treatment and Interceptros | | 4.949 | 3.712 | I<br>II 2.293<br>IIIa<br>IIIb<br>IVa<br>IVb 2.656<br>V | | |
| | | Town of Woodstock<br>Lost River Road<br>Woodstock, NH 03262 | R | 293<br>0043-001 | P-001<br>11201 | | 2 | | Rehabilitation and Interceptors | | 0.014 | 0.011 | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb 0.014<br>V | | |
| | | Town of Woodstock<br>Lost River Road<br>Woodstock, NH 03262 | R | 293<br>0043-001 | | | 3 | | Rehabilitation and Interceptors | | 0.047 | 0.035 | I<br>II<br>IIIa 0.002<br>IIIb<br>IVa<br>IVb 0.045<br>V | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |
| | | | | | | | | | | | | | I<br>II<br>IIIa<br>IIIb<br>IVa<br>IVb<br>V | | |

Mr. LEVITAS. Please proceed.

Mr. COLLINS. Mr. Chairman and members of the committee, it is a pleasure to be here to express our views and concerns in regard to Public Law 92-500. You have my statement. I would just like to highlight a few points of it to show how we have proceeded in New Hampshire and how we have not proceeded in other ways.

Basically since the passage of Public Law 92-500, we have made good progress in our activities, which we have indicated by comparing it to region I, the total of region I. It should be noted that New Hampshire has 12 percent of the allocation to Region IV dollar wise. But of the total number of projects completed, we have 47 percent of the step 1's completed from region I. We have 29 percent of the step 2's completed, and we have 24 percent of the step 3's completed in region I. Whereas, we are only getting 12 percent of the funds. We have advanced quite rapidly. With respect to active projects, we have 24 percent of the step 2's in the region that are active. In addition to these, which EPA figures show as being active or completed, under our active category we carry almost 63 projects that are over 90 percent completed. So, overall, we have moved quite rapidly.

We have grant applications at EPA. We have grant applications in our State office, we have 20 grant applications in our State office of which we only have enough money remaining in our 1979 funds to make three. Since the passage of Public Law 92-500, New Hampshire's total expenditure is approximately $350 million to comply with the regulations. Of this, 63 percent came from EPA and 24 percent from the State and about 13 percent locally. This shows how we progressed. We have certain factors we believe helped us to progress. Our legislature in 1967 passed a statute whereby our agency cosigned all engineering agreements between municipalities and engineers. We negotiate the scope, we negotiate the fees. This approach has realized a considerable savings and expedited the program quite a bit.

Another factor which we think helped us to advance is that when Congress passed Public Law 92-500, our agency believed it, and we proceeded to advise municipalities to move rapidly. We had over 25 step 1's in progress by the end of 1975. We had good working relations with region I, their construction staff, and we also worked up a tracking system on all projects. It is based on the engineering contract which has dates of completion of various tasks. This tracking system in just a few pages, is brought up to date monthly. We meet and see who is lagging behind and why.

The individuals were contacted or the towns were contacted to sign this or move ahead with that. EPA showed up on our tracking system where they were lagging. Our staff spent considerable time working with municipalities, working regarding what forms to use, how to proceed, how to fill out some of the Federal forms.

One reason we have also progressed quite rapidly was our State legislature in 1972 passed legislation which said our agency would design, construct and operate a facility serving at least eight municipalities in the Winnipesaukee River Basin in Central New Hampshire. This includes Laconia and the surrounding communities all down to the Merrimack River. What this has done; the communities realized they had a problem, and they pressured,

through the State legislature. So this has moved ahead. There has been 27 separate grants which have been made by EPA for this one big project.

The interceptor is completed and treatment plant, in fact, is being dedicated today.

One other thing that we did, which we found to expedite the projects, was to employ an archaeologist on our staff. This enabled faster compliance with the regulations. We expedited projects by relocating lines and, in two cases, we minimized the amount of salvage that was required. This is one factor which we think moved things quite fast.

There are other factors which we are afraid slowed things down. It is the level of Federal funding. In addition, we feel that EPA has been trying to siphon off some of these construction funds for other things, multipurpose project proposals, integrated grants legislation and, most recently, PRM 79-11, which now permits the use of 201 funds for performance of section 106 waste load allocation studies.

You heard this yesterday and it also affected us, the implementation of regulations and proliferation of them. EPA did them by dates in a lot of cases. Whereas, since we progressed and we had step 1's and step 2's done, then EPA came out with these regulations and you are back doing the things over again. The 2-percent set-aside for innovative and alternative technology grant increases, we do not feel that we will be able to use that completely, partly blamed on EPA not defining innovative and alternative in a timely manner.

Since we were so far ahead, we had done most of your step 1 and a good portion of step 2's. To go back and tell a town to start over again did not set very good.

In one instance, it took over 16 months to get a legal decision where EPA Regional Counsel would agree with our attorney general on interpretation of our State law regarding duties of counties.

Aside from 201 funds, there are 106 funds. There has been talk of cutting them down, or no need for them now that there is 205(g) funding. I prepared a little table which is in the presentation and basically it totals out in 7 years New Hampshire used only 24 percent of the 106 funds for what are now known as 205(g) functions.

The remainder of the 106 funds were used to supplement State funds for enforcement, surveillance, monitoring, training, operation and maintenance, and other requirements of the law. We consider the continuation of section 106 funding very essential in order for the States to be able to comply with the requirements of Public Law 92-500 other than those associated with section 205(g). We received our 205(g) delegation October 6, 1978. It was in three phases.

We recently have received the last phase. We feel it has worked very good.

EPA has made a survey of what we have done in one year. They say we have done very satisfactorily. The authorization agreement included a series of checklists for the various tasks which we assumed and we check them off, and sign them, and EPA has accepted them. We actually give approval of plans and specifications, authorizing award of construction contracts, approval of

change orders, revised pages and addenda, approval of infiltration/inflow analyses, approval of sewer system evaluation surveys, and general program management such as the construction grants project list.

Of the total package, there are only two items which we just certify to EPA. We certify adequacies of payments and we certify the grant applications.

Then there are some delays in receiving those. I would note the delegation is working very well in New Hampshire. Grantees are well pleased, especially with the speed in which they now receive their funding, the payments. We have had the delegation for over a year but there are still at the last count 16 payment requests at EPA that have not been made as yet.

We have no backlog in ours right now. We have used considerable other personnel than 205(g) funding to do our work under this delegation.

[Mr. Mineta assumed the Chair.]

This was simply because we were fearful of the up and down staffing problem which would occur due to unpredictable funding or even failure to fund at the Federal level. The State is a prisoner of uncertainty by reason of the funding being tied to appropriations and not authorizations.

We have progressed to the point we have used our 1978 funds and 1979 funds. The EPA will probably tell you we still have $10 million. That does not count the almost $3 million we have in grants at EPA and $800,000 in grant increase requests at EPA. Some of them have been down there since last May. Three grants are in our office, a grant increase in our office, and the set-asides. We actually have a balance now of only $300,000 out of our 1979 funds.

We have some recommendations, and we feel that, if possible, the construction grant funding should be done at least 1 year in advance so that proper planning and programing can be scheduled. We feel that it should be at the authorized level and not at the other appropriation level. The 2 percent set aside for the 205(g), we also figure should be at the authorized level. We should have some assurances so that our program can move along without ups and downs. We feel that some of the decisionmaking in Washington would, in regard to regulations, be more meaningful, if regulation and policies were made with assistance of more engineering people on this staff, in high levels. We feel they are regulating by PRM's and POM's, which are, in some cases, frustrating the intent of the Congress.

Prior to the 205(g) delegation, we did have two other agreements with EPA. One was back in March 1976 where EPA approved our system of procurement services for engineering with municipalities as giving the same equivalent protection to the grantees. We also had a certification agreement whereby we approved construction drawings and specifications, change orders and addenda, operation and maintenance manuals, which complied with all EPA requirements. This was signed in December 1977 to expedite the program. We feel that it is imperative that Federal funding for this program come along quickly, especially for the States that are ready to obligate it.

We noted that Tom Jorling, on pages 10, 11, and 12 in Strategies for Funding of Multi-Purpose Projects, which came out in June 1979, that the Federal statute will never be satisfied with annual appropriation of $4.2 billion if inflation continues at a minimum of 7 percent, and even with zero inflation, it will take approximately 19 years to construct the needs to satisfy the requirements of Public Law 92-500.

It is wishful thinking to think the program can be completed without increases in the construction grant funds.

We had a hearing on our construction grant project list for 1980. We had over a hundred people in attendance representing 59 communities and all of them without an exception wanted the money right away to begin their construction. Their plans are all done. Regretfully, only 17 of these communities can be helped under our 1980 funds. We have a list, 51 pages long, for projects necessary to comply with Public Law 92-500 that at the present rate of funding, it will be after 1984. A good portion of these projects have gone through step 1 and step 2, and what is going to happen after we get around to doing them 5 years from now?

We will probably have to change them. It is regretful.

We have sort of come to a halt. We think that this can be helped somewhat by passage of the two-tier funding program. The States that have proceeded and used their obligation, should be able to at least get up to the authorization. We are bothered by the inclusion of the obligation of the innovative alternative in redistribution of unobligated funds. We have moved ahead. We have projects waiting. Basically the engineering and the facilities plans covered all the alternatives, and the communities do not want to go back and start over again. They just want money to go ahead and build.

This is basically what I have in my statement. I will be glad to answer any questions.

Mr. MINETA. Thank you very much, Mr. Collins.

Mr. Long, will you go ahead and make your presentation, and then we will proceed with our questions.

Mr. LONG. Mr. Chairman and members of the subcommittee, I am Emory Long representing the Texas Department of Water Resources.

Mr. MINETA. Excuse me for interrupting, but I notice that our colleague from Iowa has appeared, Mr. Grassley, and if I might request of you at this point, Mr. Long, to interrupt your presentation, to ask Mr. Grassley to go ahead and make his statement.

## TESTIMONY OF HON. CHARLES E. GRASSLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. GRASSLEY. Thank you, Mr. Chairman, and members of the committee. I appreciate the opportunity to be with you to testify on some of the problems that my people in my State and district are having with the construction grant program for municipal wastewater treatment facilities.

My main objective in this testimony will be to relay some of the problems faced by these small communities. Iowa, you understand, is filled with many small communities. In fact, I think there are only two States, Illinois and Pennsylvania, that have larger numbers of municipalities. Often these towns are governed by a few

63-935 O—80——40

people who act as public servants part-time and have full-time jobs elsewhere. Some towns participating in this program are so small that they have no phone directory listing for their city governments. These dedicated public servants from small communities are drowning in public paperwork.

Although most of these Federal requirements were motivated by the good intentions of Congress, part-time local officials inexperienced with the grant application process, are tested by handicapped-access requirements, minority business requirements, endangered species requirements, and so forth. They are yearning for the one-page applications used by the Department of Interior in the sixties for sewer grant construction eligibility.

When a city seeks reimbursement from EPA, payment is often delayed because a municipality has failed to properly complete a form or is not correctly advised about what information is needed. When payment is delayed, these towns must borrow money to satisfy their creditors or delay paying their engineers and contractors. Both of these solutions are unsatisfactory.

Iowa must take responsibility for many of these delays. Both Iowa's department of environmental quality (IDEQ) and EPA must approve construction grants. Iowa has not elected to apply for the 2-percent Cleveland-Wright administrative set-aside because Iowa's State Legislature wants to stop the growth of Iowa's State government. The State is also fearful that the 2-percent set-aside of authorizations is too uncertain a standard, in light of shrinking appropriations, for projecting staffing needs and program costs. Iowa has also seen California's difficulty in administering its program under the Cleveland-Wright delegation and is proceeding with caution.

After President Nixon stopped impounding funds for wastewater treatment systems, Iowa granted almost every applicant step 1 money. This was an attempt to get as many projects on line as possible. After completing the initial step 1 planning phases, many applicants expected speedy approval of their step 2 and step 3 requests. Administrative delays made such approval a long and constantly changing process.

In addition, Iowa imposes more stringent standards than EPA in some instances and is woefully understaffed to handle all the grant applications.

What does this mean to a small Iowa town? In the case of Donnellson, Iowa, population 798, it means an 8-year undertaking. After initial rejection, EPA accepted the plan submitted by Donnellson in August 1978, 3 months later. The plan was not approved by IDEQ until July 1979, 11 months after submission. Donnellson was placed on Iowa's priority list in 1978 receiving a step 2 beginning date of March 1979 and a step 3 date for January 1980. The recently published priority list for 1980 shows a significant delay—step 2 will begin in September 1981, 2½ years later, and step 3 in December 1982, 2 years later.

This delay is due in part to a grant review staff shortage on the State level. IDEQ is reporting a backlog of 300 facilities plans as of September 10, 1979. It is due in part to the high priority of Des Moines in completing its system totaling $110 million over the next 5 years.

Finally, Donnellson's lower priority is partly due to the inherent prejudice in the law for larger population centers inasmuch as water quality is generally a function of population density.

Donnellson's current cost estimates show the new treatment works costing $900,000 or $15 per household each month. By losing priority and being delayed until 1983, the total cost is projected to be $1,500,000, or a $25 per month increase of the average household bill. Not only have EPA's constantly changing regulations caused Donnellson great difficulty, IDEQ has demanded more stringent secondary treatment than that required by EPA. This stiffer State standard will increase the cost of the total project 50 percent and the city's share 300 percent.

Dissatisfaction with the program is universal. In Iowa's case, placing grant approval on either the State or local level would simplify the process for small cities. Better Federal interagency coordination should be encouraged to diminish the onerous paperwork required of grant applicant. Agency rules promulgated after project initiation should not be applicable to a municipality unless they will not cause expense or delay. Congress should consider pushing back the 1983 date for compliance unless adequate funding exists for all secondary treatment plants. This revision will enable States to legally issue discharge permits. The role of EPA should be restricted to treatment selection. Lastly, the grant application process should be streamlined for small cities.

Mr. Chairman, I thank you for the opportunity to testify today. Many small cities similar to Donnellson have contacted me and are encouraged by your attention to their plight. I think you need to be complimented for bringing attention to this problem. There is no doubt about it, it is really a rough one in small communities. That figure of a $15 to $25 increase, in monthly bills because of the 3-year delay has fallen very heavily upon senior citizens who are retired. It is particularly difficult in rural areas where senior citizens retire to the small communities on fixed incomes. They simply cannot afford to pay these bills.

Thank you.

Mr. MINETA. Thank you very much, Mr. Grassley. Your letter, as well as many others which our subcommittee received from our colleagues, prompted these hearings. And we appreciate your contribution to the deliberations.

Mr. GRASSLEY. Thank you very much.

Mr. LEVITAS. May I ask a question?

Mr. MINETA. Mr. Levitas.

Mr. LEVITAS. The problem you describe is one that we hear frequently, and as the chairman said, has prompted these hearings.

I have two questions. No. 1, it was my recollection that this committee in the 1977 amendments provided an expedited procedure for combining step No. 1 and step No. 2 applications for small communities with projects under $50 million——

Mr. MINETA. Steps 2 and 3.

Mr. LEVITAS. Two and three.

Did Donnellson come under this provision or do you know?

Mr. GRASSLEY. I think we probably have special problems in my State just because of stricter State standards and are not staffing up accordingly by using the set-aside for administration. That could

be part of the problem. I think there are still problems on top of that, not only in Iowa, but in many States. I hope I am right on that.

Mr. LEVITAS. I think one of the best things that has been done was the Cleveland-Wright concept which I strongly supported when it was written into the law. I think it holds great hope for the future. It is somewhat disappointing to me to find that a State like Iowa, which I would hope is jealous of its own jurisdictions, fails to take advantage of that opportunity.

Mr. CLEVELAND. Will the gentleman yield?

Mr. LEVITAS. Yes.

Mr. CLEVELAND. The reason that Iowa has not rushed into Cleveland-Wright is apparent from the testimony of Mr. Collins of New Hampshire and the experience of California. Under Cleveland-Wright you get 2 percent of the construction grant money to staff up so you can do some of these things at the State level that used to be done at the Federal level and took so long. But the 2 percent slides away from you because over in the Appropriations Committee they are not appropriating enough money. And the reason they are not appropriating over there is they look at those figures on unobligated funds and say here is a good place to swing the axe. There is a reason for the States not to go into Cleveland-Wright; because some States staffed up at 6 billion or 5 billion or 4.4 billion. Today they are suddenly dropped down to 3.4 billion, and that is all the appropriations gave us and they have to lay off those guys.

Mr. LEVITAS. I realize that. It certainly would make it a lot better for States to do it. Consider the alternative. The alternative is the States do not do it either on their own or with the 2 percent, so it stays up here at EPA or regional EPA, and if we took Congressman Grassley's suggestion and turn it over to the States, then they would have to staff up without Cleveland-Wright funding. It may be a Catch 22 situation. I personally believe that more decisionmaking made at the local and State level is good.

Mr. CLEVELAND. Amen.

Mr. LEVITAS. Therefore, even if the State—you said the State of Iowa does not want to increase the size of State government, either you do that or you get the Feds doing it for you, it seems to me. I would certainly rather have the people at home do it than the people in Washington.

Mr. GRASSLEY. There would possibly be less reluctance if they made a determination to do it on their own as opposed to taking advantage of a Federal program that might deteriorate over a period of time. As I remember from my years in State legislature, we were a little gun shy of that approach.

Mr. CLEVELAND. One other point, Mr. Chairman, if the gentleman would yield. We have the Cleveland-Wright No. 2 coming up and that fixes the 2 percent at the amount of the authorization, not at the amount of the appropriation. That is a little ray of hope for States like California and Iowa that have expressed concern with that fluctuation.

Mr. GRASSLEY. Thank you.

Mr. MINETA. Thank you very much, Mr. Grassley.

Mr. Long, thank you for bearing with us. We have a copy of the full text of your statement, and without objection, it will be made apart of the record at this point. If you will proceed with a summary.

## Statement by Dick Whittington and Emory G. Long, Texas Department of Water Resources

Mr. Chairman and Members of the Surcommittee:
I am Emory Long representing the Texas Department of Water Resources. I want to thank you for the opportunity to appear before the subcommittee to discuss the Title II Construction Grants Program of the Clean Water Act of 1977 and, in particular, to discuss with you some of the experiences that we have had in Texas with the delegation of program responsibilities to the State.

The Environmental Protection Agency and the States have, since 1972, received criticism for the management of the Construction Grants Program. In my opinion, two factors have contributed to the difficulties of administration and management of this program. My purpose here today is to discuss these factors and to present to you some suggestions that I feel will support improvements in program management.

One factor that has historically hampered the Construction Grants Program has been the inconsistency of funding level coupled with the uncertainty of availability of funds from year to year. The uncertainty of available funds between 1973 and 1977 seriously affected the management of the program in Texas. As illustrated in Attachments (A) & (B) the annual allocation for Texas increased each year from 1973 to a high in 1976 of $174 million plus an additional $88 million in public works funds, but was reduced to $43 million in 1977. This reduction made it very difficult to manage the program, especially from the standpoint of keeping projects on schedule. In many states the inconsistency of funding has also resulted in a large unobligated balance, since they did not have

ENOUGH STEP 1 AND STEP 2 PROJECTS UNDER WAY TO LOGICALLY OBLIGATE ALL OF THE 1978 AND 1979 ALLOCATIONS. THIS SITUATION WILL CHANGE DRASTICALLY IN TEXAS IN 1980 AND 1981 SINCE IT APPEARS THAT $218 MILLION WILL BE OBLIGATED IN 1980 AND APPROXIMATELY $266 MILLION WILL BE OBLIGATED IN 1981.

IN AN EFFORT TO SUPPORT IMPROVED PROGRAM MANAGEMENT, A FIVE YEAR FUNDING AUTHORIZATION FOR THE CONSTRUCTION GRANTS PROGRAM WAS INCLUDED IN THE CLEAN WATER ACT OF 1977. THIS PROVISION OF THE ACT WAS STRONGLY SUPPORTED BY ALL WHO WERE ASSOCIATED WITH THE CONSTRUCTION GRANTS PROGRAM. CONSISTENT FUNDING OVER THE NEXT FEW YEARS IS AN ABSOLUTE NECESSITY IF WE ARE TO REMAIN ON SCHEDULE WITH EXISTING PROJECTS WHICH WERE PREVIOUSLY FUNDED IN STEP 1 AND/OR STEP 2. IT MAY BE EVEN MORE CRITICAL TO THE 100 PROJECTS IN TEXAS THAT HAVE BEEN FUNDED IN STEP 1 AND STEP 2 WITH 1979 FUNDS. ONE OBSERVATION THAT IS REFLECTED IN ATTACHMENT (C) IS, THAT IF CONSISTENT FUNDING WERE PROVIDED THROUGH 1982 IN THE AMOUNT AS AUTHORIZED BY THE CLEAN WATER ACT OF 1977, ONLY A PORTION OF THE PROJECTS IN THE CONSTRUCTION GRANTS PROGRAM AT THE PRESENT TIME COULD BE FUNDED THROUGH THE CONSTRUCTION PHASE. ALTHOUGH FUNDS ARE AUTHORIZED THROUGH 1982, WE MUST BEGIN TO LOOK AT A LONG TERM FUNDING STRATEGY IF WE ARE TO BRING MUNICIPAL DISCHARGES INTO COMPLIANCE WITH THE OBJECTIVES AND GOALS OF THE CLEAN WATER ACT.

WHILE I AM ON THE SUBJECT OF FUNDING, I WOULD LIKE TO SAY THAT THE 106 WATER QUALITY MANAGEMENT PROGRAM GRANT HAS BEEN MOST BENEFICIAL IN PROVIDING THE STATES WITH THE MANPOWER TO CARRY OUT AN EFFECTIVE WATER QUALITY PROGRAM. THE 106 PROGRAM FUNDING IN TEXAS HAS RANGED FROM $636,000 IN 1972 TO $1,935,700 IN 1979. OVER THE YEARS, THE NUCLEUS OF THE CONSTRUCTION GRANTS PROGRAM (PRIOR TO THE 205G GRANT)

WAS FUNDED FROM THIS SOURCE. IN ORDER TO CONTINUE THE CLEAN-UP OF THE NATION'S WATERS, IT IS MANDATORY THAT THE LEVEL OF EFFORT BE MAINTAINED AND THAT THE 106 PROGRAM FUNDS BE CONTINUED.

THE SECOND FACTOR WHICH I FEEL HAS AFFECTED THE ADMINISTRATION OF THE CONSTRUCTION GRANTS PROGRAM HAS BEEN THE INCREASING COMPLEXITY OF THE PROGRAM WITHOUT THE PROPORTIONATE INCREASE IN ENVIRONMENTAL PROTECTION AGENCY STAFF TO ADMINISTER THE PROGRAM. THIS HAS RESULTED IN SUBSTANTIAL DELAYS IN PROCESSING PROJECTS. PROGRAM DELAYS ARE NOT ONLY FRUSTRATING TO THE COMMUNITIES PARTICIPATING IN THE CONSTRUCTION GRANTS PROGRAM, BUT THESE DELAYS HAVE SUBSTANTIALLY INCREASED THE COSTS OF AFFECTED PROJECTS BECAUSE CONSTRUCTION COSTS HAVE BEEN INCREASING AT A GREATER RATE THAN THE OVERALL RATE OF INFLATION.

BY 1977 IT HAD BECOME APPARENT THAT A PROGRAM OF THIS SIZE AND COMPLEXITY COULD NOT BE EFFECTIVELY ADMINISTERED FROM THE FEDERAL LEVEL WITH THE MANPOWER AVAILABLE. AT THAT TIME, THE CONGRESS INCLUDED A PROVISION IN THE CLEAN WATER ACT WHICH PROVIDED FOR QUALIFIED STATES TO BE DELEGATED THE RESPONSIBILITY FOR ADMINISTERING THE CONSTRUCTION GRANTS PROGRAM IN THEIR RESPECTIVE STATES. IN ORDER TO ASSURE THAT THE STATES WOULD HAVE SUFFICIENT MANPOWER TO FULLY ASSUME THIS RESPONSIBILITY AND NOT BE FACED WITH THE PROBLEMS PREVIOUSLY ENCOUNTERED BY THE ENVIRONMENTAL PROTECTION AGENCY, THE CONGRESS PROVIDED THAT EACH STATE WHICH WAS DELEGATED AUTHORITY TO ADMINISTER THE PROGRAM COULD RESERVE UP TO 2% OF THE CONSTRUCTION GRANT ALLOTMENT TO SUPPORT THE COST OF ASSUMING DELEGATION.

In April, 1978, the Texas Department of Water Resources began negotiations with the Environmental Protection Agency to execute the Construction Grants delegation agreement to assume responsibility for administering the program. On September 8, 1978 an agreement was entered into by the Environmental Protection Agency and the Texas Department of Water Resources which defined the activities and responsibilities to be delegated to the State; forty seven distinct functions were identified. The agreement further provided that the Texas Department of Water Resources would assume responsibility for the program in four phases over a two year period. Both agencies agreed that implementation should occur by phases so that the Texas Department of Water Resources would have sufficient time to recruit, hire and train competent, qualified staff. (Attachment D)

At the present time, thirty three functions of the agreement have been fully delegated to the State of Texas. Most of the functions associated with the Step 1 process, facility planning, and the Step 2 process, development of plans and specifications, have been fully delegated. In addition, most of the Step 3 construction associated functions have been delegated. Seven functions which have to do with the physical construction inspection will be delegated at such time as the inspection staff of the Texas Department of Water Resources has been adequately trained by the Corps of Engineers. There are seven other functions dealing with the Step 1 and Step 2 processes which are scheduled for future delegation. It is anticipated that full delegation will be completed by late 1980.

IN ADDITION TO THE FORTY SEVEN FUNCTIONS PRESENTLY INCLUDED IN THE DELEGATION AGREEMENT, IT IS ANTICIPATED THAT OTHER FUNCTIONS SUCH AS THE PUBLIC PARTICIPATION PROGRAM, OUTLAY MANAGEMENT, AND THE ADVANCED SECONDARY/ADVANCED WASTE TREATMENT JUSTIFICATION WILL BE DELEGATED BY LATE 1980.

I WOULD LIKE TO MAKE SPECIAL NOTE OF THE FACT THAT THE MINORITY BUSINESS ENTERPRISES AND THE ISSUANCE OF ENVIRONMENTAL REVIEW CLEARANCES CANNOT BE DELEGATED TO THE STATES AND STILL EXIST, AND APPARENTLY WILL CONTINUE TO EXIST, AS ENVIRONMENTAL PROTECTION AGENCY FUNCTIONS. THIS MEANS THAT THE STATES WILL NOT BE GIVEN TOTAL DELEGATION AUTHORITY FOR THE CONSTRUCTION GRANTS PROGRAM. IT ALSO MEANS THAT REGARDLESS OF THE FUNCTIONS THAT ARE DELEGATED TO THE STATES, AND REGARDLESS OF THE EFFORTS TO EXPEDITE THE PROCESSING OF PROJECTS, THE ENVIRONMENTAL PROTECTION AGENCY WILL, THROUGH THESE FUNCTIONS, MAINTAIN A DECISION MAKING ROLE IN EVERY PROJECT. IN MY OPINION THIS COULD HAMPER EFFICIENT AND EXPEDITIOUS PROCESSING OF PROJECTS.

WHEN THE CONGRESS WAS CONSIDERING DELEGATING THE CONSTRUCTION GRANTS PROGRAM TO THE STATES, IT WAS PROJECTED THAT THE DELEGATION ALONE SHOULD EXPEDITE THE PROCESSING OF A PROJECT BY AS MUCH AS SIX MONTHS TO ONE YEAR FROM START TO FINISH. I AM CONFIDENT THAT, AT THE TIME THE PROJECTION WAS MADE, DELEGATION WOULD REDUCE THE DELAYS IN THE PROGRAM AND SPEED UP THE PROCESSING OF PROJECTS.....WHAT, IN REALITY, HAS HAPPENED IS THAT THE ENVIRONMENTAL PROTECTION AGENCY HAS PLACED FOUR MAJOR REQUIREMENTS ON THE PROGRAM SINCE DELEGATION THAT TEND TO FURTHER DELAY THE CONSTRUCTION GRANTS PROCESS. THESE ARE THE PUBLIC

PARTICIPATION REQUIREMENTS, THE REGIONAL GOALS FOR MINORITY BUSINESS ENTERPRISES, THE ADVANCED SECONDARY/ADVANCED WASTE TREATMENT JUSTIFICATION, AND THE MUNICIPAL PRETREATMENT REQUIREMENTS. THE PUBLIC PARTICIPATION PROGRAM AND THE ADVANCED SECONDARY/ADVANCED WASTE TREATMENT JUSTIFICATION FUNCTIONS HAVE HAD A SIGNIFICANT IMPACT ON THE PROGRESS OF PROJECTS BECAUSE THEY HAVE DELAYED THESE PROJECTS UP TO SIX MONTHS.

ANY DELAY IN PROCESSING A PROJECT THROUGH THE CONSTRUCTION GRANTS PROGRAM CAN RESULT IN SUBSTANTIALLY INCREASED COSTS ASSOCIATED WITH THE PROJECT BECAUSE OF THE RAPIDLY RISING CONSTRUCTION COSTS. BECAUSE THE CONSTRUCTION GRANT APPROPRIATION IS A FIXED AMOUNT, THE INCREASE IN COST OF INDIVIDUAL PROJECTS WILL REDUCE THE NUMBER OF NEEDED PROJECTS THAT CAN BE FUNDED THROUGH THIS PROGRAM. THE ADMINISTRATIVE DELAYS HAVE INCREASED THE COSTS OF PROJECTS SUCH THAT SOME LOCAL GOVERNMENTS NO LONGER HAVE THE ABILITY TO PROVIDE THE REQUIRED 25% MATCHING FUNDS. AT THE WATER POLLUTION CONTROL FEDERATION MEETING HELD RECENTLY IN HOUSTON, I HEARD REPRESENTATIVES OF ENGINEERING ORGANIZATIONS AND CITY OFFICIALS REMARK ON SEVERAL OCCASIONS THAT THE GRANTS PROGRAM HAD BECOME SO INVOLVED BECAUSE OF REGULATIONS AND PROGRAM REQUIREMENTS THAT IT IS NO LONGER ECONOMICAL FOR A MUNICIPALTIY TO PURSUE 75% TITLE II GRANT FUNDING. I DOUBT THE VALIDITY OF THIS STATEMENT; ESPECIALLY SINCE THERE ARE IN EXCESS OF 1300 PROJECTS ON THE STATE OF TEXAS MUNICIPAL FACILITIES CONSTRUCTION GRANTS PRIORITY LIST AWAITING FUNDING. HOWEVER, IT DOES MAKE ONE WONDER WHETHER THE PROGRAM HAS BECOME OVER REGULATED.

TO FURTHER EMPHASIZE THE DELAYS ENCOUNTERED IN THE CONSTRUCTION GRANTS PROGRAM IN TEXAS, ATTACHMENT (E) INDICATES THAT 385 PROJECTS WERE AWARDED STEP 1 GRANTS FROM 1973 TO 1979 AND THAT, TO DATE, ONLY 89 OF THESE PROJECTS HAVE BEEN COMPLETED THROUGH THE CONSTRUCTION

PHASE. ATTACHMENT (F) SHOWS THE TOTAL TIME WHICH IT TAKES TO MOVE A PROJECT THROUGH THE PROGRAM. HISTORICAL DATA INDICATES THAT IT TAKES 7-3/4 YEARS TO PROCESS THE AVERAGE PROJECT. UNDER A FULLY DELEGATED PROGRAM WE PROJECT, ASSUMING THAT EPA SERVES ONLY IN AN OVERSIGHT ROLE, THAT THE TOTAL PROCESS TIME CAN BE REDUCED TO 6 YEARS. A FURTHER TIME REDUCTION CAN BE DEMONSTRATED IN A STEP 2 PLUS 3 GRANT WHERE THE NEED FOR THE SUBMISSION OF A STEP 3 APPLICATION IS ELIMINATED. THIS REDUCES THE TOTAL PROCESS TIME TO 5½ YEARS. I SUBMIT TO YOU THAT THE ELIMINATION OF BOTH THE STEP 2 AND THE STEP 3 APPLICATION PROCESS COULD RESULT IN A FURTHER DECREASE OF 6 MONTHS. THIS WOULD RESULT IN A TOTAL TIME TO PROCESS AN AVERAGE PROJECT TO LESS THAN 5 YEARS. THE THREE STEPS OF THE GRANT PROCESS THAT ARE CURRENTLY REQUIRED BY REGULATION HAVE THE MOST SIGNIFICANT IMPACT ON THE DELAYS ASSOCIATED WITH THE GRANTS PROGRAM.

I FEEL THAT THERE ARE OTHER ADVANTAGES TO THE ELIMINATION OF THE THREE STEP APPLICATION PROCESS IN ADDITION TO THE REDUCTION OF TIME THAT IT WOULD TAKE TO COMPLETE A PROJECT. OTHER ADVANTAGES, AS I SEE THEM ARE:

1. IT WOULD PLACE THE APPLICANT IN A ROLE OF PUSHING THE PROJECT FORWARD AS QUICKLY AS POSSIBLE IN AN EFFORT TO REDUCE THE EFFECTS OF INFLATION ON PROJECT COSTS.
2. IT WOULD GIVE THE CONSULTING ENGINEER MORE INCENTIVE TO KEEP THE PROJECT ON SCHEDULE, AND
3. IT WOULD PROVIDE A MORE REALISTIC BALANCE IN THE PROGRAM IN THAT MORE ATTENTION COULD BE DIRECTED TOWARD THE CONSTRUCTION PHASE OF THE PROJECT. HISTORICALLY MOST OF THE ADMINISTRATIVE REVIEW HAS BEEN ASSOCIATED WITH

STEP 1 AND STEP 2 WHICH COMPRISE ONLY ABOUT 8 TO 10% OF THE TOTAL COST OF A PROJECT.

SOME ADDITIONAL THOUGHT SHOULD BE GIVEN TO THE OBLIGATION OF FUNDS ON LARGE PROJECTS, AND HERE I AM SPEAKING OF PROJECTS WHOSE COSTS ARE IN EXCESS OF $20 MILLION. IT MAY NOT BE IN THE BEST INTEREST TO OBLIGATE FUNDS ON SUCH PROJECTS THAT FAR IN ADVANCE. THERE MAY BE SOME MERIT IN MAINTAINING THE STEP FUNDING FOR PROJECTS OF OVER $20 MILLION, OR AT LEAST FOR FUNDING THE STEP 1 AND STEP 2 PORTIONS SEPARATELY FROM THE ENTIRE PROJECT. THIS WOULD AFFECT LESS THAN 5% OF THE PROJECTS IN TEXAS.

TO ILLUSTRATE OTHER AREAS WHERE I FEEL DELAYS MIGHT BE REDUCED I HAVE PROVIDED ATTACHMENT (G), A DETAILED BREAKDOWN OF EACH APPLICATION AND WORK PHASE OF THE PROGRAM IN TEXAS.

REDUCTION IN PROCESS TIME BETWEEN THE HISTORICAL AND DELEGATED PROGRAM CAN BE ILLUSTRATED IN TWO MAIN AREAS. THE HISTORICAL PROGRAM DATA SHOWS MUCH DUPLICATION IN THE REVIEW TIME BY THE ENVIRONMENTAL PROTECTION AGENCY AND THE TEXAS DEPARTMENT OF WATER RESOURCES. UNDER A FULLY DELEGATED PROGRAM THERE SHOULD BE NO REVIEW DUPLICATION. IN SOME AREAS OF THE PROGRAM WHICH HAVE ALREADY BEEN DELEGATED, THIS DUPLICATION OF EFFORT IS STILL BEING EXPERIENCED. THIS SHOULD NOT BE THE CASE AS THE DELEGATION AGREEMENT EXPRESSLY DEFINED THE ENVIRONMENTAL PROTECTION AGENCY'S RESPONSIBILITIES IN TERMS OF AN OVERSIGHT FUNCTION. IN-HOUSE REVIEW TIME IS THE SECOND MAJOR AREA OF TIME SAVINGS. BY THE FORESIGHT CONTAINED IN THE CLEAN WATER ACT UNDER 205G, THE CONGRESS HAS ALLOWED MORE MANPOWER TO BE PLACED IN THE PROGRAM AND REVIEW TIME CAN BE REDUCED.

EVEN WITH THE ADDITIONAL PROGRAM REQUIREMENTS THAT HAVE BEEN PLACED UPON THE STATE OF TEXAS SINCE THE DELEGATION, I AM CONFIDENT THAT IN TEXAS A PROJECT CAN BE PROCESSED THROUGH THE SYSTEM MORE EXPEDITIOUSLY THAN IN THE PAST. THIS LEADS TO THE IMPORTANT FACT THAT, UNDER DELEGATION, A GREATER NUMBER OF PROJECTS CAN BE PROCESSED THAN PRIOR TO DELEGATION.

THE REDUCTION IN PROJECT PROCESS TIME HAS SEVERAL POSITIVE BENEFITS, MOST OF WHICH ARE RELATED TO MINIMIZING THE EFFECTS OF INFLATION ON PROJECTS:

1. MORE PROJECTS CAN BE FUNDED
2. LESS FINANCIAL BURDEN IS PLACED ON LOCAL GOVERNMENTS SINCE THEIR SHARE OF THE PROJECT COST CAN BE MAINTAINED AT A LOWER AMOUNT
3. IMPROVEMENTS IN EFFLUENT DISCHARGES AND SUBSEQUENT IMPROVEMENT IN WATER QUALITY IN RECEIVING STREAMS OCCURS MORE PROMPTLY, AND
4. THE PARTICIPANTS IN THE PROGRAM FIND IT LESS FRUSTRATING.

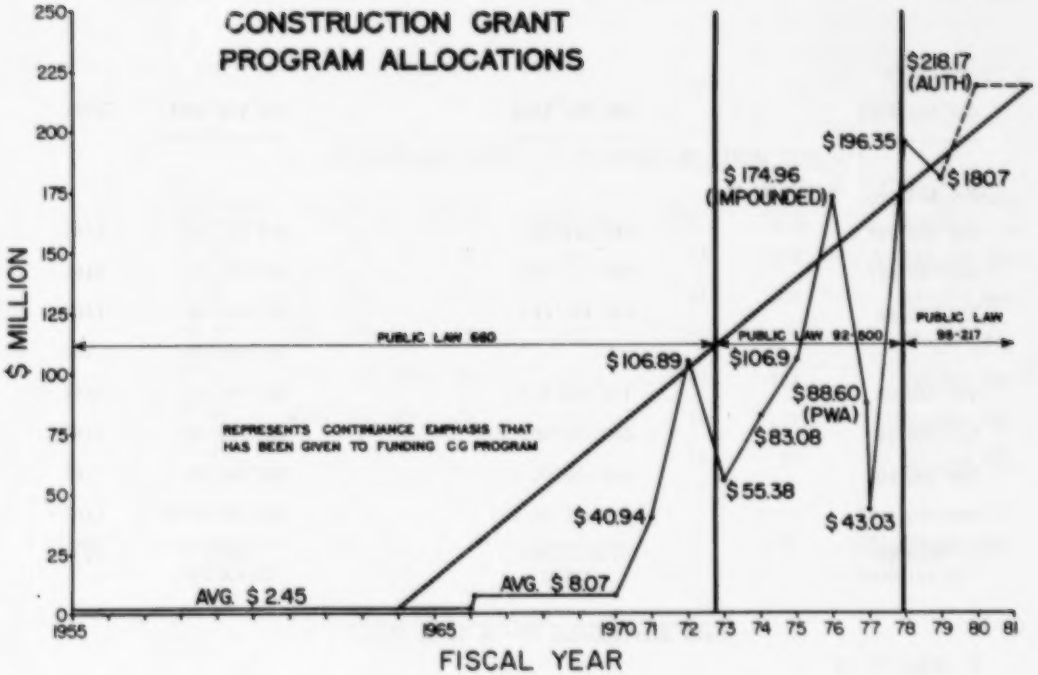
IN SUMMARY, I FEEL THAT THERE ARE FIVE AREAS IN THE CONSTRUCTION GRANTS PROGRAM WHERE CHANGES COULD RESULT IN IMPROVEMENTS IN THE ADMINISTRATION AND MANAGEMENT OF THE PROGRAM:

1. URGE THE CONGRESS TO FUND THE CONSTRUCTION GRANTS PROGRAM AT LEAST TO THE EXTENT OF PROVIDING FUNDS TO STATES WHICH ARE READY TO PROCEED THROUGH THE GRANTS PROGRAM
2. DEVELOP A CONSISTENT, LONG TERM FUNDING STRATEGY BEYOND THAT AUTHORIZED BY THE CLEAN WATER ACT OF 1977

3. Encourage the Environmental Protection Agency to serve in an oversight role in those states that are delegated.
4. Urge the Environmental Protection Agency to discontinue the addition of new and modified program requirements which are not mandated by law, and
5. Consider abolishing the application process on individual steps as it relates to the Construction Grants Program. This, in my opinion, would expedite the grants program by at least 12 to 18 months. As an alternative to the elimination of the steps in the grants program, the Step 2-3 allowance should be increased from $2 million to a total project cost of $20 million. I am of the opinion that the step process could be eliminated or modified with only minor changes and possibly, with no changes in the law. I am not in any way suggesting that the detailed facility planning, the sewer system evaluation survey or that adequate plans and specifications be eliminated from the process. I am suggesting that the administrative review process, which is, in my opinion, the most significant source of delays in the progress of a project, be reduced or eliminated.

In closing, I would like to leave with you the most basic idea that the State of Texas can offer for the success of the Construction Grants Program. That idea is, "The establishment of good quality water in this nation." The state of Texas fully supports the many additional purposes that the grant program can fulfill; however, for these purposes to be realized, the success of the Water Quality Program must continue.

ATTACHMENT A



ATTACHMENT B

STATUS OF PL 92-500 APPROPRIATED FUNDS

| YEAR | ALLOCATED FUNDS | GRANT ASSISTANCE | UNOBLIGATED BALANCE |
|---|---|---|---|
| 1973 | $ 55,388,000 | $ 48,377,600 | $ 7,010,400 |
| 1974 | 83,082,000 | 30,703,495 | 59,388,905 |
| 1975 | 106,900,250 | 108,467,040 | 57,822,115 |
| 1976 | 174,969,850 | 171,898,971 | 60,892,994 |
| PWA | 88,608,000 | | |
| 1977 | 43,030,000 | 143,464,743 | 46,066,251 |
| 1978 | 196,353,000 | 105,753,202 | 139,666,049 |
| 1979 | 180,723,600 | 107,073,931 | 204,795,399 |
| | | | G. MGT. I/A (7,124,254) |
| TOTAL | $929,054,700 | $715,738,982 | $204,795,399 |
| 1980 | $146,200,000 EST. | $218,000,000 EST. | $127,147,399 EST. |
| | | | G. MGT. I/A $ (5,848,000) |

ATTACHMENT C

PROJECTS ANTICIPATED TO BE FUNDED BY FISCAL YEAR

| FISCAL YEAR | STEP 1 | STEP 2 | STEP 2+3 | STEP 3 | TOTAL | GRANT ASSISTANCE REQUIRED |
|---|---|---|---|---|---|---|
| FY 80 | 97 | 59 | 53 | 64 | 273 | $ 218,068,300 |
| FY 81 | 100 | 87 | 74 | 41 | 302 | 266,719,889 |
| FY 82 | EST. 70 | 13 | 152 | 40 | 275 | 270,826,300 |
| FY 83 | EST. 70 | EST. 24 | 19 | 49 | 162 | 298,162,750 |
| FY 84 | EST. 70 | EST. 25 | 15 | 18 | 128 | 290,706,500 |
| FY 85 | | | | 18 | 18 | 125,194,500 |
| | | | | | 1,158 | $1,469,675,239 |

PHASE I

ATTACHMENT D

| Manyears | | Project/Priority Management |
|---|---|---|
| 5.00 | 43. | Priority System |
| 7.00 | 31. | ADP Tracking System |
| 2.00 | 32. | Official Files |
| | | **Grants Administration** |
| 1.73 | 6. | Subagreements and Cost Analysis |
| 0.80 | 3. | Preapplication Conferences |
| 2.50 | 4. | Applications and Grant Offers |
| 5.00 | 47. | Grantee Assistance |
| | | **208 Planning** |
| 0.91 | 7. | Plan of Study |
| | | **Enforcement and Field Operations** |
| 1.00 | 42. | Operation and Maintenance Inspections |
| 16.00 | **24. | Interim and Final Inspections |

*Assumed September 8, 1978
**Presently delegated to the Corps of Engineers
Personnel hired for training

| Manyears | | Project Engineering |
|---|---|---|
| 5.30 | 11. | Facility Plans |
| 5.30 | 13. | Cost Effectiveness Analyses |
| 5.30 | 39. | Analysis of Best Practical Waste Treatment Technology and Innovative and Alternative Technology |
| 0.71 | 10. | Environmental Assessment |
| 1.40 | * 8. | Infiltration/Inflow Analysis |
| 1.31 | * 9. | Sewer System Evaluation Survey |
| 1.73 | 6. | Subagreement and Cost Analysis |
| 7.32 | *14. | Plans and Specifications |
| 8.81 | *15. | Addenda and Change Orders |
| 0.04 | 20. | Valve Engineering |
| 2.73 | 5. | Grant Amendments and Modifications |
| 2.58 | 29. | Compliance With Procurement Procedures |
| 0.32 | *18. | Draft Operation and Maintenance Manuals |
| 0.21 | *25. | Final Operation and Maintenance Manuals |
| 0.13 | 26. | Industrial Waste Ordinance and Sewer Use Ordinances |

## PHASE II

| Manyears | | Grants Administration |
|---|---|---|
| 5.20 | 33. | Payments |
| 3.20 | 34. | Audit of Project Files and Audit Exceptions |
| 1.07 | 21. | Bid Solicitation and Contract Documents |
| 1.47 | 40. | Wage Determination |

| Manyears | | Project Engineering |
|---|---|---|
| 0.05 | 41. | Authorization to Advertise For Bids |
| 0.20 | 16. | User Charges |
| 0.03 | 19. | Letters of Intent |
| 0.70 | 17. | Preliminary Plan of Operation |
| 0.70 | 23. | Final Plan of Operation |
| 0.80 | 28. | Start-Up Services |

## PHASE III

| Manyears | | Grants Administration |
|---|---|---|
| 1.00 | **37. | Payroll Conformance to Department of Labor |

| Manyears | | Project Engineering |
|---|---|---|
| 0.21 | 27. | User Charges and Industrial Cost Recovery Systems |
| 0.13 | 45. | Review Requirement For the Development of a Municipal Pretreatment Program |
| 0.38 | 46. | Review the Developed Pretreatment Program |
| 2.00 | **36. | Biddability and Constructability |
| 1.00 | **22. | Pre-Award Construction Conferences |
| 0.50 | **35. | Force Account Work |
| 0.50 | **49. | Provide Assistance in the Resolution of Protests |
| 1.00 | **12. | Relocation Plans and Compliance With Uniform Relocation Assistance and Real Property Acquisition Policies |

**Presently delegated to the Corps of Engineers

## PHASE IV

**Grants Administration**

30. Project Certification for Small Communities

**Project Engineering**

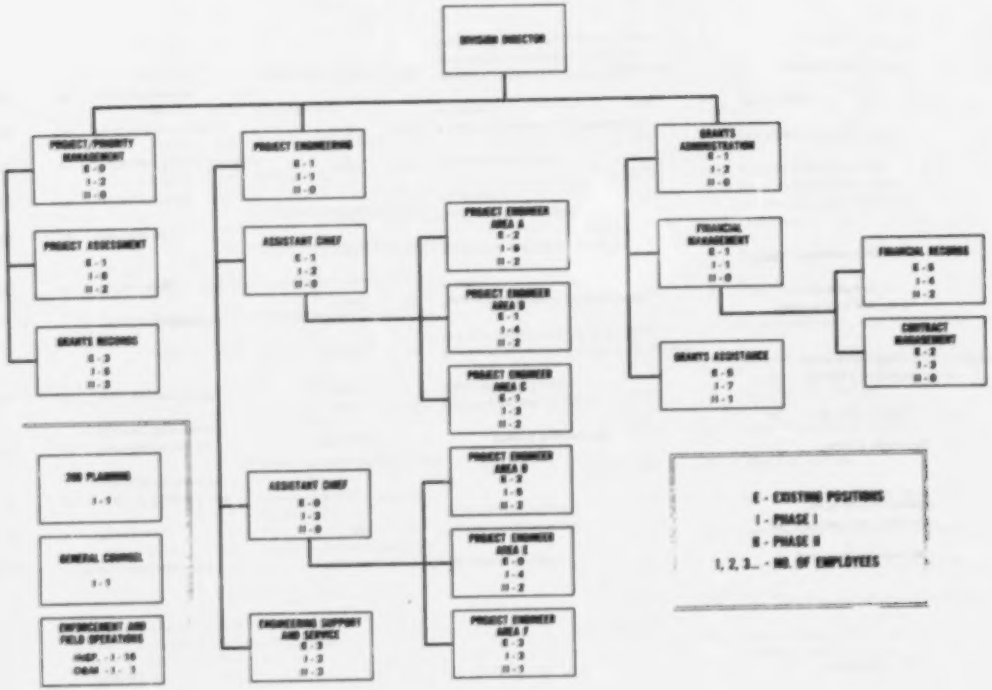
44. Individual Systems

**38. Manage Construction Grant Program for Small Communities

**Enforcement and Field Operations**

**48. Resident Inspections

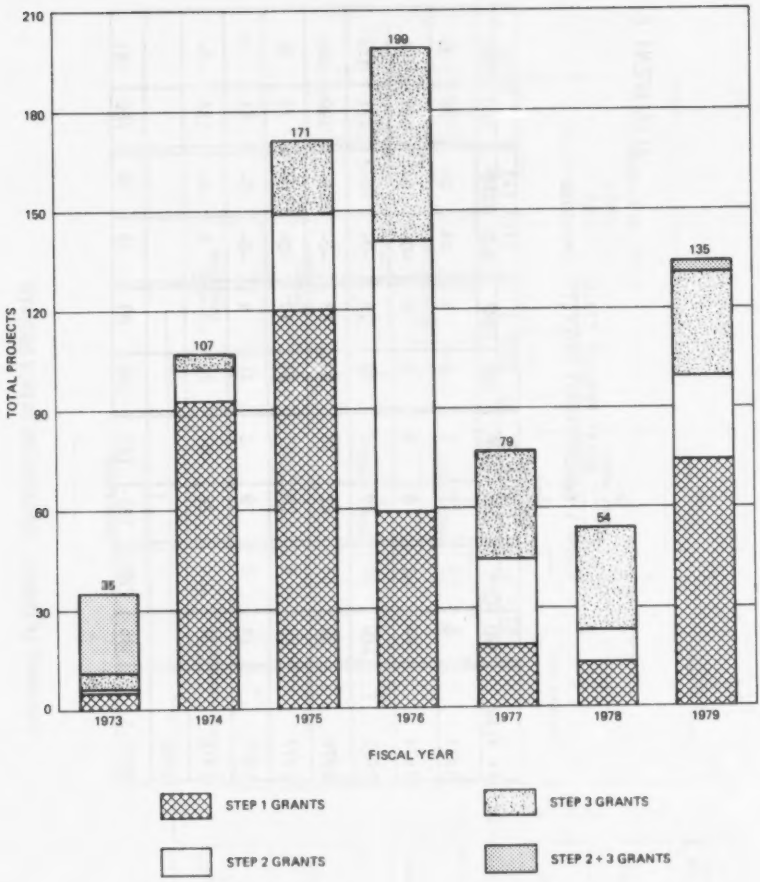
## PERSONNEL TO CONDUCT CONSTRUCTION GRANTS PROGRAM



ATTACHMENT E

GRANT PROJECT STATUS
GRANTS AWARDED/GRANT PROJECTS COMPLETED

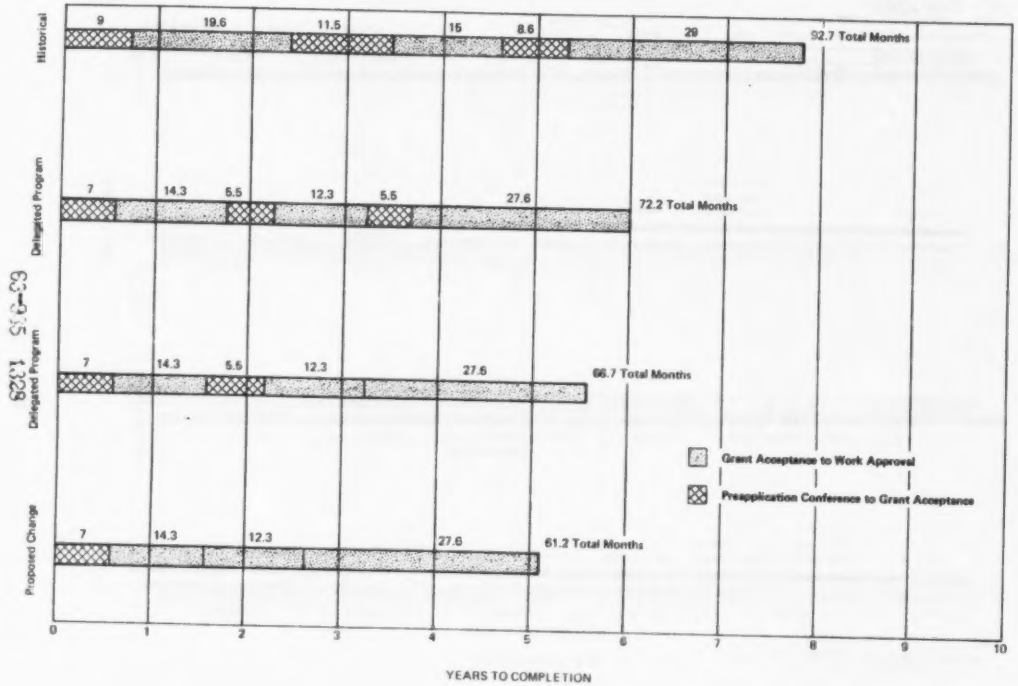
| FY YEAR | STEP 1 | | STEP 2 | | STEP 3 | | STEP 2+3 | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AWD | COMP | AWD | COMP | AWD | COMP | AWD | COMP | AWD | COMP |
| 1973 | 5 | 5 | 1 | 1 | 5 | 5 | 24 | 24 | 35 | 35 |
| 1974 | 94 | 81 | 8 | 8 | 5 | 5 | -0- | -0- | 107 | 94 |
| 1975 | 120 | 88 | 29 | 22 | 22 | 18 | -0- | -0- | 171 | 128 |
| 1976 | 59 | 46 | 82 | 70 | 58 | 43 | -0- | -0- | 199 | 159 |
| 1977 | 19 | 6 | 26 | 17 | 34 | 13 | -0- | -0- | 79 | 36 |
| 1978 | 14 | 2 | 9 | 2 | 31 | 5 | -0- | -0- | 54 | 9 |
| 1979 | 74 | -0- | 26 | -0- | 31 | -0- | 4 | -0- | 135 | -0- |
| 1980 | | | | | | | | | | |
| TOTALS | 385 | 228 | 181 | 120 | 186 | 89 | 28 | 24 | 780 | 461 |




GRANT PROJECT STATUS BY STEP
BY FY YEAR

ATTACHMENT F

COMPARISON OF TOTAL TIME ELAPSED



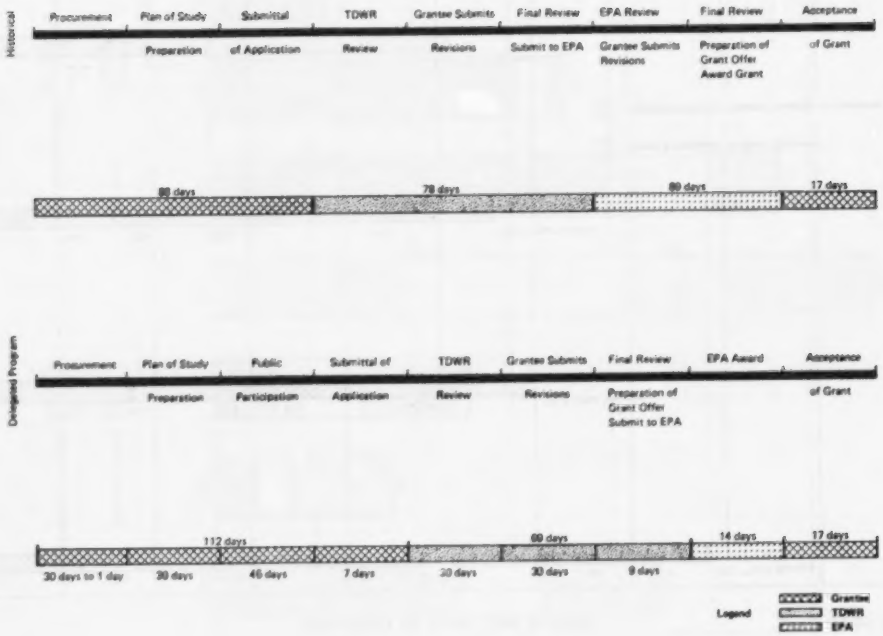



63-95 1328

## ATTACHMENT G.1

## STEP 1 APPLICATION

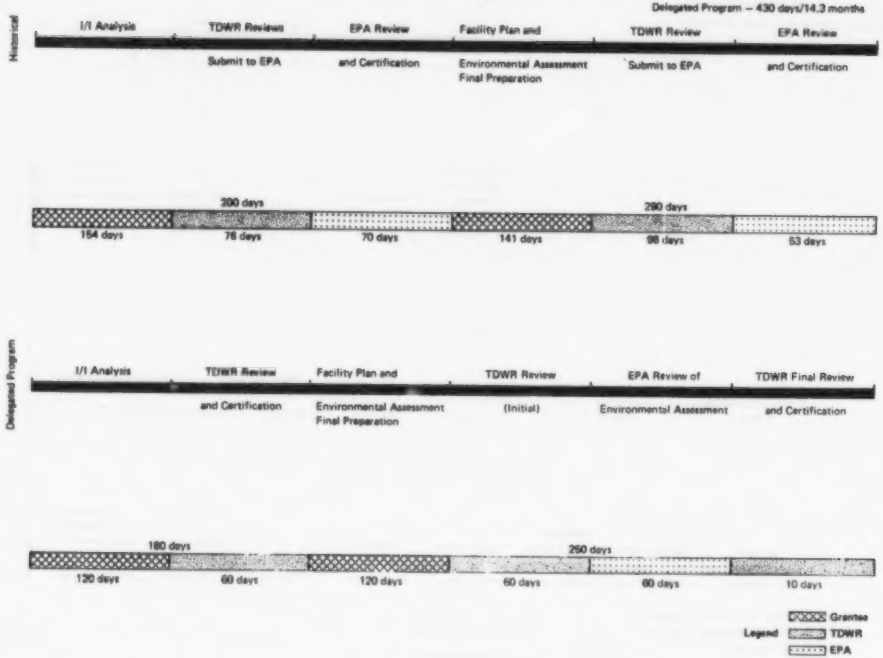
**Total Time**
Historical – 272 days/9 months
Delegated Program – 212 days/7 months



## ATTACHMENT G.2

## STEP 1 WORK

Total Time
Historical – 580 days/19.6 months
Delegated Program – 430 days/14.3 months

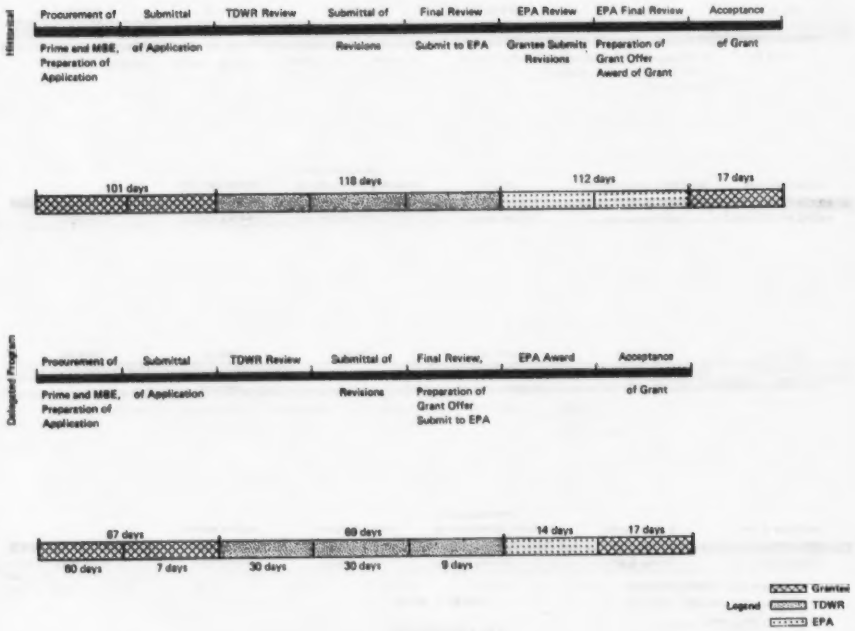


## ATTACHMENT G.3

## STEP 2 APPLICATION

**Total Time**

Historical – 348 days/11.6 months,
Delegated Program – 167 days/5.5 months



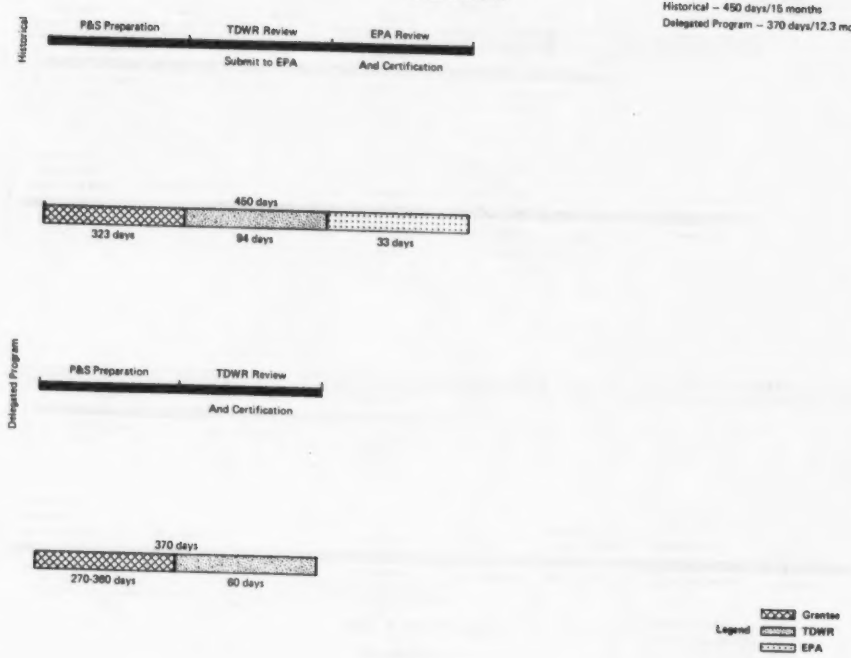
## ATTACHMENT G.4

## STEP 2 WORK

**Total Time**

Historical – 450 days/15 months

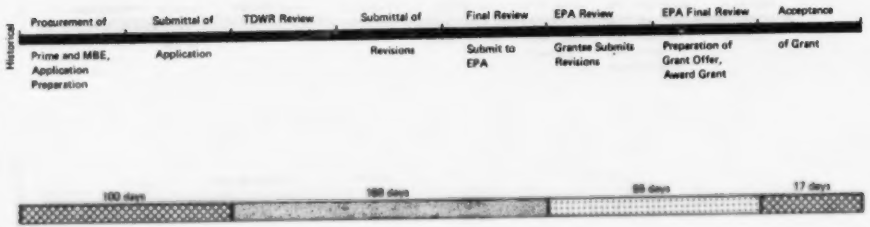
Delegated Program – 370 days/12.3 months

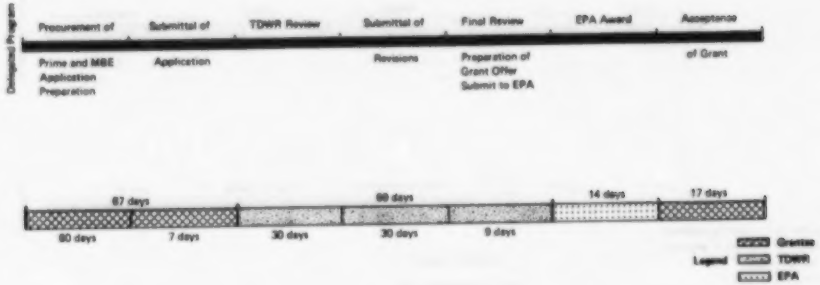


## ATTACHMENT G.5

## STEP 3 APPLICATION

**Total Time**
Historical 260 days/8.8 months
Delegated Program 167 days/5.5 months



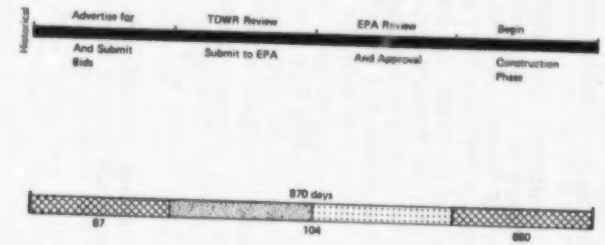
## ATTACHMENT G.6

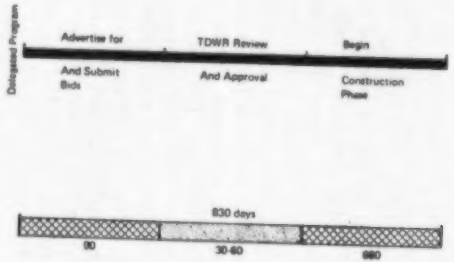
## STEP 3 WORK

**Total Time**

Historical 870 days/29 months

Delegated Program 830 days/27.6 months




Legend
- Grantee
- TDWR
- EPA

Mr. LONG. Mr. Chairman and members of the committee. I am Emory Long representing the Texas Department of Water Resources. I want to thank you for the opportunity to appear before the subcommittee to discuss the title II construction grants program of the Clean Water Act of 1977 and, in particular, to discuss with you some of the experiences that we have had in Texas with the delegation of program responsibilities in the State.

The Environmental Protection Agency and the States have, since 1972, received criticism for the management of the construction grants program. In my opinion, two factors have contributed to the difficulties of administration and management of this program. My purpose here today is to discuss these factors and to present to you some suggestions that I feel will support improvements in program management.

One factor that has historically hampered the construction grants program has been the inconsistency of funding levels coupled with the uncertainty of availability of funds from year to year. The uncertainty of available funds between 1973 and 1977 seriously affected the management of this program in Texas. As illustrated in this presentation, the annual allocation for Texas increased each year from 1973 to a high in 1976 of $174 million plus an additional $88 million in public works funds, but was reduced to $43 million in 1977. This reduction made it very difficult to manage the program, especially from the standpoint of keeping projects on schedule. In many States, the inconsistency of funding has also resulted in a large unobligated balance, since they did not have enough step 1 and step 2 projects underway to logically obligate all of the 1978 and 1979 allocations. This situation will change drastically in Texas in 1980 and 1981 since it appears that $218 million will be obligated in 1980 and approximately $266 million will be obligated in 1981 if funds are available.

In an effort to support improved program management, a 5-year funding authorization for the construction grants program was included in the Clean Water Act of 1977. This provision of the act was strongly supported by all who were associated with the construction grants program. Consistent funding over the next few years is an absolute necessity if we are to remain on schedule with existing projects which were previously funded in step 1 and/or step 2. It may be even more critical to the 100 projects in Texas that have been funded in step 1 and step 2 with 1979 funds. One observation that is reflected in attachment (C) of my written statement is, that if consistent funding were provided through 1982 in the amount as authorized by the Clean Water Act of 1977, only a portion of the projects in the construction grants program at the present time could be funded through the construction phase. Although funds are authorized through 1982, we must begin to look at a long-term funding strategy if we are to bring municipal discharges into compliance with the objectives and goals of the Clean Water Act.

While I am on the subject of funding, I would like to say that the section 106 water quality management program grant has been most beneficial in providing the States with the manpower to carry out an effective water quality program. The 106 program funding in Texas has ranged from $636,000 in 1972 to $2,935,700 in 1979.

Over the years, the nucleus of the construction grants program—prior to the section 205(g) grant—was funded from this source. In order to continue the cleanup of the Nation's waters, it is mandatory that the level of effort be maintained and that the section 106 program funds be continued.

The second factor which I feel has affected the administration of the construction grants program has been the increasing complexity of the program without the proportionate increase in Environmental Protection Agency staff to administer the program. This has resulted in substantial delays in processing projects. Program delays are not only frustrating to the communities participating in the construction grant program, but these delays have substantially increased the costs of affected projects because construction costs have been increasing at a greater rate than the normal overall rate of inflation.

By 1977 it had become apparent that a program of this size and complexity could not be effectively administered from the Federal level with the manpower available. At that time, the Congress included a provision in the Clean Water Act which provided for qualified States to be delegated the responsibility for administering the construction grants program in their respective states. In order to assure that the States would have sufficient manpower to fully assume this responsibility and not be faced with the problems previously encountered by the Environmental Protection Agency, the Congress provided that each State which was delegated authority to administer the program could reserve up to 2 percent of the construction grant allotment to support the cost of assuming delegation.

In April 1978, the Texas Department of Water Resources began negotiations with the Environmental Protection Agency to execute the construction grants delegation agreement to assume responsibility for administering the program. On September 8, 1978, an agreement was entered into by the Environmental Protection Agency and the Texas Department of Water Resources which defined the activities and responsibilities to be delegated to the State; 47 distinct functions were identified. The agreement further provided that the Texas Department of Water Resources would assume responsibility for the program in four phases over a 2-year period. Both agencies agreed that implementation should occur by phases so that the Texas Department of Water Resources would have sufficient time to recruit, hire, and train competent qualified staff.

At the present time, 33 functions of the agreement have been fully delegated to the State of Texas. Most of the f. nctions associated with the step 1 process, facility planning, and the step 2 process, development of plans and specifications, have been fully delegated. In addition, most of the step 3 construction associated functions have been delegated. Seven functions which have to do with the physical construction inspection will be delegated at such time as the inspection staff of the Texas Department of Water Resources has been adequately trained by the Corps of Engineers. There are seven other functions dealing with the step 1 and step 2 processes which are scheduled for future delegation. It is anticipated that full delegation will be completed by late 1980.

In addition to the 47 functions presently included in the delegation agreement, it is anticipated that other functions, such as the public participation program, outlay management, and the advanced secondary/advanced waste treatment justifications will be delegated by late 1980.

I would like to make special note of the fact that the minority business enterprises and the issuance of environmental review clearances cannot be delegated to the States and still exist, and apparently will continue to exist, as Environmental Protection Agency functions. This means that the States will not be given total delegation authority for the construction grants program. It also means that regardless of the functions that are delegated to the States, and regardless of the efforts to expedite the processing of projects, the Environmental Protection Agency will, through these functions, maintain a decisionmaking role in every project. In my opinion, this could hamper efficient and expeditious processing of projects.

When the Congress was considering delegating the construction grants program to the States, it was projected that the delegation alone should expedite the processing of a project by as much as 6 months to 1 year from start to finish. I am confident that, at the time the projection was made, delegation would reduce the delays in the program and speed up the processing of projects. However, what, in reality, has happened is that the Environmental Protection Agency has placed four major requirements on the program, since delegation, that tend to further delay the construction grants process. These are the public participation requirements, the regional goals for minority business enterprises, the advanced secondary/advanced waste treatment justification, and the municipal pretreatment requirements. The public participation program and the advanced secondary/advanced waste treatment justification functions have had a significant impact on the progress of projects because they have delayed these projects up to 6 months.

Any delay in processing a project through the construction grants program can result in substantially increased costs associated with the project because of the rapidly rising construction costs. Because the construction grant appropriation is a fixed amount, the increase in cost of individual projects will reduce the number of needed projects that can be funded through this program. The administrative delays have increased the costs of projects such that some local governments no longer have the ability to provide the required 25 percent matching funds.

At the Water Pollution Control Federation meeting held recently in Houston, I heard representatives of engineering organizations and city officials remark on several occasions that the grants program had become so involved because of regulations and program requirements that it is no longer economical for a municipality to pursue 75 percent title II grant funding. I doubt the validity of this statement, especially since there are in excess of 1,300 projects on the State of Texas municipal facilities construction grants priority list awaiting funding. However, it does make one wonder whether the program has become overregulated.

To further emphasize the delays encountered in the construction grants program in Texas, attachment (E) indicates that 385 projects

were awarded step 1 grants from 1973 to 1979; and that, to date, only 89 of these projects have been completed through the construction phase. Attachment (F) shows the total time which it takes to move a project through the program. Historical data indicates that it takes 7¾ years to process the average project. Under a fully delegated program we project, assuming that EPA serves only in an oversight role, that the total process time can be reduced to 6 years. A further time reduction can be demonstrated in a step 2 plus 3 grant where the need for the submission of a step 3 application is eliminated. This reduces the total process time to 5½ years. I submit to you that the elimination of both the step 2 and the step 3 application process could result in a further decrease of 6 months. This would result in a total time to process an average project to less than 5 years. The three steps of the grant process that are currently required by regulation have the most significant impact on the delays associated with the grants program.

I feel that there are other advantages to the elimination of the three-step application process in addition to the reduction of time that it would take to complete a project. Other advantages as I see them are:

First, it would place the applicant in a role of pushing the project forward as quickly as possible in an effort to reduce the effects of inflation on project costs.

Second, it would give the consulting engineer more incentive to keep the project on schedule, and

Third, it would provide a more realistic balance in the program in that more attention could be directed toward the construction phase of the project. Historically, most of the administrative review has been associated with step 1 and step 2 which comprise only about 8 to 10 percent of the total cost of a project.

Some additional thought should be given to the obligation of funds on large projects, and here I am speaking of projects whose costs are in excess of $20 million. It may not be in the best interest to obligate funds on such projects that far in advance. There may be some merit in maintaining the step funding for projects of over $20 million, or at least for funding the step 1 and step 2 portions separately from the entire project. This would affect less than 5 percent of the projects in Texas.

To illustrate other areas where I feel delays might be reduced, I have provided attachment (G), a detailed breakdown of each application and work phase of the program in Texas.

Reduction in process time between the historical and delegated program can be illustrated in two main areas. The historical program data shows much duplication in the review time by the Environmental Protection Agency and the Texas Department of Water Resources. Under a fully delegated program there should be no review duplication. In some areas of the program which have already been delegated, this duplication of effort is still being experienced. This should not be the case as the delegation agreement expressly defined the Environmental Protection Agency's responsibilities in terms of an oversight function. By the foresight contained in the Clean Water Act under section 105(g), the Congress has allowed more manpower to be placed in the program and review time can be reduced.

63-935 O—80——42

Even with the additional program requirements that have been placed upon the State of Texas since the delegation, I am confident that in Texas a project can be processed through the system more expeditiously than in the past. This leads to the important fact that, under delegation, a greater number of projects can be processed than prior to delegation.

The reduction in project process time has several positive benefits, most of which are related to minimizing the effects of inflation on projects:

First, more projects can be funded.

Second, less financial burden is placed on local governments since their share of the project cost can be maintained at a lower amount.

Third, improvements in effluent discharges and subsequent improvement in water quality in receiving streams occurs more promptly.

In summary, I feel that there are five areas in the construction grants program where changes could result in improvements in the administration and management of the program.

First, urge the Congress to fund the construction grants program at least to the extent of providing funds to States which are ready to proceed through the grants program.

Second, develop a consistent long-term funding strategy beyond that authorized by the Clean Water Act of 1977.

Third, encourage the Environmental Protection Agency to serve in an oversight role in those States that are delegated.

Fourth, urge the Environmental Protection Agency to discontinue the addition of new and modified program requirements which are not mandated by law, and

Fifth, consider abolishing the application process on individual steps as it relates to the construction grants program. This, in my opinion, would expedite the grants program by at least 12 to 18 months. As an alternative to the elimination of the steps in the grants program, the step 2-3 allowance should be increased from $2 million to a total project cost of $10 million to $20 million. This would be about 95 to 98 percent of all the projects that we have.

I am of the opinion that the step process could be eliminated or modified with only minor changes and, possibly, with no changes in the law. I am not in any way suggesting that the detailed facility planning, the sewer system evaluation survey or that adequate plans and specifications be eliminated from the process. I am suggesting that the administrative review process, which is, in my opinion, the most significant source of delays in the progress of a project, be reduced or eliminated.

Mr. Chairman, in closing, I would like to emphasize that the delegation of the program to the States and the step 2-3 grants that are included in the law have improved the program immensely in our State.

Mr. Chairman, this concludes my written presentation. I do have with me Mr. Harry Voigt, chief of my project engineering division, and Mr. Robert Clinger who heads the project priority branch. I would be open to any questions that the committee might have.

Mr. MINETA. Mr. Long and Mr. Collins, I want to thank you very much for your very thorough statements.

Mr. Collins, you indicate there are roughly 16 backlog projects which EPA still has and have not turned over to the States.

Mr. COLLINS. These are requests for payments.

Mr. MINETA. I see. They are not projects?

Mr. COLLINS. These are projects which were going along, before we took delegation, and the community had asked for, and sent in all the forms for, requests for payments, and they have not as yet been processed.

Mr. MINETA. Would any of those projects be speeded up if they were returned to the State for managing?

Mr. COLLINS. They tried to pass those off on us after about 7 or 8 months, but they have all the data down there. We do not have it in our files. At that point, the payment request would go right to EPA, and we did not see taking these over. We have processed all other payments. When you figure that our State allocation was $33 million last year; since January 1 to the end of September, we have processed payments which have totaled $28 million, so we keep right up with the ones that come in.

The engineers know what they are supposed to submit, and we contact them and the community if they are missing something. We get after them right away and they get them in, and it has made a big difference. The communities have saved a lot of money by not having to go out and borrow on short terms.

Mr. MINETA. You refer to the EPA's continual use of dates and implementation of new regulations, and this has resulted in delays to projects.

I am wondering if you could elaborate on this? Are you talking about retroactive application of new regulations to ongoing projects?

Mr. COLLINS. This is correct, yes.

Mr. MINETA. Do you have any examples of the kinds of delays that have resulted from this?

Mr. COLLINS. We have one grant application that was down at EPA, and they were just about ready to make it, and new regulations came out that they questioned the authority of the applicant to get a grant. It happened to be a precinct which was established by State statute, but the name included "fire district."

What does a fire district have to do with it? Just the delay to go back and get copies of documentations to show when, back in 1880, and that the precinct was established, its duties included sewers. All of a sudden EPA comes up with this delay. The interpretation recently now in regulations that has to do with submitting an intermunicipal agreement, if there is more than one municipality—well, we have one that happens to be between two States, and the regulations say for step 2 you must have the draft, and for a step 3 grant, you must have it final.

The communities had agreed to it at the town meeting, but they did not authorize signing until such time as it had been approved by the State agency, our State attorney general and EPA. EPA would not make the grant because they said it had to be signed. Well, here with our form of government which has town meetings once a year in March; what you are doing—you are just putting off this project for a year.

Finally, by talking to other regions, we got them to admit that "final"—I happen to know other people in other regions—that "final" was not interpreted as being signed, that it was in final form agreed to, and we shook that loose. It is things like this.

Mr. MINETA. The Town Council would not be meeting for another year?

Mr. COLLINS. The town meeting. They have a town meeting, and everything is done once a year at a town meeting. It is an odd form of government, but that is the way we work.

Mr. MINETA. Do either of you know whether the EPA has any program requirements, memorandum or anything else which sets forth EPA policy for dealing with retroactive application of regulations?

Mr. COLLINS. You are in a step 1 and you are working along. They have come out with this one regulation on land use, land application and have made communities go back and look at that, and there are others.

Mr. MINETA. Mr. Long, are you aware of any other PRMs which have this same effect—retroactively requiring additional review?

Mr. LONG. The only one that comes to mind would be the one concerning reviews and justifications for AWT. In our region, we must go back and review the projects where plan specifications have already been approved. They are ready to go into construction, and we are going to have to go back and justify those projects, and it is causing in many cases, because of the way the criteria are written, that we can necessarily justify project to a certain level and are having to go back and redesign plant specifications because of that. There are other retroactive regulations, which I do not think we are having that much problem with right now. We have over years of applications processed some others, but I do not think that is occurring as much as it used to.

Mr. MINETA. Mr. Long, you also indicate on page 5 that EPA, or because the EPA cannot delegate certain functions, such as environmental impact assessment required by the Federal National Environmental Policy Act, that they can never give the total delegation to a State, and they will maintain decisionmaking control in every project.

Are we then simply deluding ourselves that this program can, in fact, be delegated to the States and run more expeditiously?

Mr. LONG. If I get the question, I feel like if there is any way they could delegate those two functions to the State, that we could get these projects off dead center a lot quicker than what historically has been done in the past.

Mr. MINETA. Would we have to amend NEPA in order to do that, to delegate that?

Mr. LONG. I do not know if the law would have to be amended. NEPA does not include any provision where it could be delegated.

Now, it is a fact that we in our region have worked with EPA and part of the review process they have turned over to us. When it comes time to circulate a negative declaration, and it takes some time, maybe 120 days, EPA keeps that particular function in house, and I think there are some things if it were delegated to a State that we could do it concurrently with some other things that are

going on and not have a 90- to 120-day delay period where the whole project is stopped.

As far as minority, business enterprise requirement I believe this minority business enterprise policy that I referred to—I see no reason why they cannot delegate that particular function to the State. In our region, I do not think it will happen, say, in the next year or so. They are reviewing every project in our area on those two functions.

Mr. MINETA. You indicate that what in reality has happened is that Environmental Protection Agency has placed four major requirements on the program since delegation that tend to further delay the construction grants process.

I am wondering if you could elaborate on this, and I am wondering if EPA is just substituting some new ways of controlling the program now that they have to let go with some of the old ways?

Mr. LONG. First of all, in answer to that, I think the transition of the program has been good. I think I need to point that out because EPA has worked closely with the States in transferring the delegated functions over to the State. I hope it is not the case where EPA is trying to stay in the program and continue to delay certain parts of the program.

But under the public participation program, regulations as written, some delays have been added to each project. We have to go back and amend each step 1 to add certain money to it, to carry out the program. As far as the regional goal for minority business enterprises is concerned, we have something like 27 projects in EPA that were held up for a period of 1 to 3 months where they were trying to make that particular policy mandatory instead of a goal, and that calls for us having to go up and review every project with them in detail and trying to apply it to the projects even before that regional goal became effective.

As I recall, that became effective in February 1979. I hope this is not the case, but it makes you wonder, if it is not the case, that they are trying to keep their foot in the door through some of these requirements that they have used to delay the program. The secondary—advanced waste treatment process itself, I think I mentioned this earlier, we had approximately 20 or 30 projects where plans and specifications were completed. We were ready to go to construction. A grant application was in-house in EPA. We had to totally stop our 208 planning program and go out and start gathering data, so we could go try and justify the AST level on many of these projects. Approximately 20 of them were held up from 3 to 5 months. We have 80 more we will have to do——

Mr. MINETA. I am wondering, Mr. Long, in those cases where we have actually delegated and you mentioned some 33 functions, are they still looking over your shoulder?

Mr. LONG. Up until October 1 of this year, they looked at every project—they went through EPA's office. Now, since October 1, starting this quarter, they have totally reorganized the regional office, and now have something like four people doing what 10 or 11 people were doing. Due to the fact that during this fiscal year we anticipate running 273 projects through the regional office at $218 million, there is no way that four people can look at every project. But they have up to this point.

Mr. MINETA. You cite the example of 10 employees down to 4, and $218 million in projects. Does that mean that the delegation really means that the State must carry out the EPA PRM's and POM's, as EPA writes them?

Mr. LONG. Yes, sir, that is the way it is.

Mr. MINETA. Over here to your left, there are a number of charts. Chart No. 6, shows that it takes up to 11 years to take a project from beginning to the very end. This was prepared for us by EPA, using their data. I do not know if you have had a chance to look at this. I wonder if this might be a fair representation of the program?

Mr. LONG. Yes, sir. In our presentation we took about 60 average projects——

Mr. MINETA. Seven and three-quarters years?

Mr. LONG. Seven and three-quarter years to go through the process. At least 1 year of that time is associated with nothing other than application review by EPA.

Now, when I say application review, at the present time we certify to EPA an application, and it includes everything that that application is supposed to include. It has historically taken 89 days for step 1, 110 days for step 2, 110 days for step 3 for them to review and sign this application. We feel it should be done in 14 days. These are some of the delays that I think are happening that we can cut down on.

Mr. MINETA. Would it be reasonable for this committee to ask you or, let us say, the EPA Administrator, when he comes before us tomorrow, to ask for a 25 percent improvement in performance within the next year so that we could cut the length of the processing time from beginning to end from, let us say, 3 to 8 years rather than 4 to 11 years? Is that reasonable?

Mr. LONG. Yes, sir, I think it is. The inflation thing is what is killing us, especially in our State. I think any thing we can do to speed up the program is to all of our advantage.

Mr. MINETA. Is 25 percent reasonable, or should use push for more?

Mr. LONG. Yes, sir. I think it is reasonable. I know on the delegated program, assuming that no new regulation comes out that causes the whole program to go in a different direction, I know that 7¾ years on an average project is too long. I feel confident under the delegation program and under step 2–3 combination grant that we can beat that number.

Mr. MINETA. Mr. Collins.

Mr. COLLINS. It would be hard to say we could reduce it 25 percent because our problem is lack of funding. We are ready. Our plans are ready. Our delegation has been used, it has helped, we have moved things along. We are at a point now that it is the funding that will slow us down.

Mr. MINETA. You have total delegation?

Mr. COLLINS. We have now total delegation, yes. We received the last phase in October.

Mr. MINETA. Mr. Cleveland.

Mr. CLEVELAND. Thank you. Mr. Chairman. Mr. Long's testimony was that maybe if we could combine steps 2 and 3 it would expedite things. That is in the record. I would like to have these charts,

showing step 1, step 2, and step 3 requirements, circulated among other State agencies. I would like to know from them if everything on the step 1 list is really necessary. My experience has been some of these things get in there because somebody down at EPA thought it was a good idea, and it gets riveted into the system. So a starting point at least might be to find out if we have got some garbage in those check lists. I would not be surprised if we did. If I am proved wrong, that is another matter. And with your permission, Mr. Chairman, I would like the responses to appear in the record at this point.

Mr. MINETA. Without objection it is so ordered.

[The following was received for the record:]

JAMES C. CLEVELAND
2D DISTRICT, NEW HAMPSHIRE

COMMITTEES:
PUBLIC WORKS AND TRANSPORTATION
HOUSE ADMINISTRATION
SELECT COMMITTEE ON CONGRESSIONAL OPERATIONS

**Congress of the United States**
**House of Representatives**
**Washington, D.C. 20515**

WASHINGTON OFFICE:
RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
TEL.: 225-5206

DISTRICT OFFICES:
316 FEDERAL BUILDING
55 PLEASANT STREET
CONCORD, NEW HAMPSHIRE 03301
TEL.: 225-5515

39 TEMPLE STREET
NASHUA, NEW HAMPSHIRE 03060
TEL.: 882-4523

November 16, 1979

Ms.Robbi J. Savage
Executive Director
Association of State and
Interstate Water Pollution
Control Administrators
444 North Capitol Street, N.W.
Washington, D.C. 20001

Dear Ms. Savage:

The Subcommittee on Oversight and Review recently held three days of hearings on the implementation and management of the Municipal Construction Grants Program. Almost all of the witnesses agreed that the duration of an average grant project, from Step I application to completion of Step III construction, was taking considerably longer than was originally anticipated. A good deal of the increased time was atributed to the various legislatively and administratively imposed requirements a grantee must meet in each of the three steps of the grant process.

The United States Environmental Protection Agency prepared a chart indicating the various grantee responsibilities required in Step I, Step II and Step III. I believe it would be appropriate for your organization to circulate this chart among your members for their views on whether all of these requirements are really necessary. Their responses, particularly with regard to which requirements could be reduced or eliminated, would make a valuable addition to our hearing record.

Your efforts on this matter are greatly appreciated. If you will forward the responses to the attention of Steve Abrams on the Subcommittee staff, he will see to it that they are made a part of the record.

Thank you for your continuing cooperation.

Sincerely,

Jim Cleveland

James C. Cleveland
Members of Congress

JCC/AD

encl.

# GRANTEE RESPONSIBILITIES

| STEP 1<br>FACILITY PLAN | STEP 2<br>DESIGN | STEP 3<br>CONSTRUCTION |
|---|---|---|
| • ENGINEERING CONTRACTS<br>• STATE WATER QUALITY OBJECTIVES<br>• EXISTING TREATMENT WORKS<br>• I/I DOCUMENTATION<br>• COST-EFFECTIVENESS<br>• INNOVATIVE/ALTERNATIVE<br>• ENVIRONMENTAL REVIEW<br>• COSTS AND CHARGES<br>• PUBLIC PARTICIPATION<br>• RECREATIONAL OPPORTUNITIES<br>• PRETREATMENT<br>• AWT REVIEW | • STATE PRIORITY<br>• VALUE ENGINEERING<br>• PROJECT SCHEDULE<br>• STATE AND LOCAL DESIGN REQUIREMENTS<br>• LABOR STANDARDS, EQUAL OPPORTUNITY AND OTHER FEDERAL STATUTES<br>• ENVIRONMENTAL MITIGATION<br>• OPERATION AND MAINTENANCE<br>• SEWER EVALUATION<br>• USER CHARGES<br>• INDUSTRIAL COST RECOVERY | • STATE PRIORITY<br>• INTERMUNICIPAL AGREEMENTS<br>• SEWER USE ORDINANCE<br>• SEWER REHABILITATION<br>• ADVERTISE, RECEIVE AND REVIEW BIDS<br>• BUY AMERICAN<br>• CONTRACTS AWARD<br>• CHANGE ORDERS<br>• INSPECTIONS<br>• START UP SERVICES<br>• O&M MANUAL<br>• AUDIT |
| 2–4 YEARS | 1–3 YEARS | 1–4 YEARS |

# ARIZONA DEPARTMENT OF HEALTH SERVICES

*Division of Environmental Health Services*

BRUCE BABBITT, Governor
SUZANNE DANDOY, M.D., M.P.H., Director

December 19, 1979

Mr. Steve Abrams, Staff Member
Subcommittee on Oversight and Review
U.S. House of Representatives
Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. ~~Abrams~~ Steve

Congressman James Cleveland recently suggested that the members of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) review and comment on a chart prepared by the U.S. Environmental Protection Agency dealing with grantee responsibilities during the three steps of the construction grant process. We are pleased to offer our thoughts concerning this chart.

Step 1

1. Innovative/Alternative (I/A) - The requirement that the facility plan include an evaluation of I/A technology is superfluous. The 85 percent funding of such facilities is sufficient incentive to the grantee. The regulation that requires evaluation of five treatment techniques (whether appropriate or not), in addition to I/A technology, significantly slows the grant process and adds to its cost.

2. Environmental Review - This is perhaps the most time-consuming requirement of all. Perhaps the new NEPA regulations that attempt to streamline the process will be successful to a degree, but the preparation of an EIS will still be a lengthy undertaking.

3. Public Participation - The time periods required for public notification are unreasonably long.

4. Recreational Opportunities - The requirement for evaluation of this area has nothing to do with the goals of the Clean Water Act, and simply adds time and cost to the preparation of a facility plan.

5. AWT Review - A totally inappropriate requirement. Degree of treatment needed is based upon State water quality standards that have been approved by EPA. Further review of treatment requirements is not warranted.

Step 2

1. Industrial Cost Recovery - All indications point to this requirement being more expensive and time-consuming than the funds it recovers. Congress should amend the Act to remove it as soon as possible.

Step 3

1. Audit - This is a necessary requirement, but it takes inordinately long to obtain a final audit in order to close a project. Audit staff resources should be commensurate with the magnitude of the job.

We appreciate the opportunity to bring these comments to your attention.

Sincerely,

Ron Miller

Ronald L. Miller, Ph.D., Chief
Bureau of Water Quality Control

RLM:RER:rlh

cc: Robbi J. Savage, ASIWPCA

STATE OF CALIFORNIA—THE RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

STATE WATER RESOURCES CONTROL BOARD

P. O. BOX 100 • SACRAMENTO 95801

(916) 445-1553

In Reply Refer to: 505:JP

DEC 20 1979

Ms. Robbi J. Savage
Executive Director
Association of State and
Interstate Water Pollution
Control Administrators
444 N. Capitol Street, N.W., Suite 330
Washington, D.C. 20001

Dear Ms. Savage:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS

Your letter of November 26, 1979 included a letter from Congressman James C. Cleveland. In his letter he asked how the Municipal Construction Grants Program could be speeded up. We believe the publication "Recommendations for an Improved Nation Water Quality Program", May, 1979, published by the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) contains a unified position on the problem. Perhaps this document, or excerpts from it, should be sent to the Congressman for inclusion in the record.

A lot of time and effort went into this document and we believe that the recommendations contained in the document are still valid. This would be a good opportunity to make the Congress aware of our efforts in this area.

California has developed a computer system that tracks events as well as forecasting when the following events will happen. It also can tell which events are on the critical path. These are the events that must be completed on time or the project is delayed. Conversely it will not speed up the job if the other events that are occurring concurrently are speeded up. The events on the critical path on a typical new $10-50 million wastewater treatment plant are:

| | |
|---|---|
| Pre-Step 1 | Prepare the Plan of Study request letter<br>Set up pre-application conference<br>Hire A/E consultant<br>Compile and review Step 1 application checklist |
| Step 1 | Process Step 1 grant<br>NEPA package<br>Compile and review Step 2 application |

| | |
|---|---|
| Step 2 | Process Step 2 grant<br>Prepare plans and specifications<br>Compile and review Step 3 application |
| Step 3 | Process Step 3 grant<br>Advertise for bids<br>Open bids<br>Review bids<br>Give notice to proceed<br>Construction |
| Post Step 3 | Conduct final construction inspection<br>Conduct final operations inspection<br>Make final operations corrections<br>Request final payment<br>Final audit<br>Final payment<br>Close project file |

What this shows is that in Step 1 the most important event is the environmental document. Therefore, it would not speed up the project if an I/I analysis is not conducted. The only way to speed up Step 1 is for the EIR consultants to speed up their work or the EPA and/or State to review the completed work faster. If the consultants do speed up their process we can use the computer model to determine by how much that will speed up the process or whether a new event is now on the critical path. If a new event is now the control we can concentrate on that event.

The bottom line to all of this is that it is difficult to pinpoint a single item that will speed up the process for all projects. We have twenty-eight combinations of size and type of project and we continually find we must adjust the model to fit the individual project.

From this viewpoint I believe the ASIWPCA publication would be the best approach at this time.

Sincerely yours,

Neil Dunham
Deputy Director
Grants and Administration

Department of Natural Resources
ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET S.W.
ATLANTA, GEORGIA 30334

JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

December 3, 1979

Congressman Norman Mineta, Chairman
House Subcommittee on Oversight and Review
Rayburn House Office Building, Room B-375
Washington, D.C. 20515

Attention: Mr. Robert S. Prolman

RE: Construction Grants
Program Hearings

Dear Congressman Mineta:

This letter is written in reference to the hearings which were conducted on October 30 through November 1, 1979 by the House Public Works and Transportation Committee's Subcommittee on Oversight and Review. These hearings, which you chaired, concerned the status of the Construction Grants Program. We respectfully submit the following comments to be included in the official record of those hearings.

There are several factors which have a significant effect on the rate of progress in the Construction Grants Program. At present, the most obvious of these is the involvement of EPA, and especially of EPA Headquarters, in the review of projects requiring treatment levels beyond secondary. The Environmental Protection Agency staff involved in these reviews are going beyond the limits of their responsibility by becoming involved in project details rather than water quality issues, resulting in a completely independent project review by EPA Headquarters which often second-guesses the decisions which had previously been made by State and EPA Regional Office project engineers who had been involved with the projects for years. The delays caused by EPA's involvement have disrupted the program greatly. To date, we have submitted 23 justification packages to EPA for projects requiring treatment levels beyond secondary, 12 of which required Headquarters review. We have received approval of one package and comments on a portion of one package from Headquarters. We are still awaiting an initial response on the remaining 10 packages, some of which were submitted to EPA as early as last February. The total capital cost of projects on which we are still awaiting EPA approval is nearly $200 million, and the average time which these packages have been at EPA is greater than six months. At the current rate of inflation in the construction industry of approximately 12% these delays have cost the program in the neighborhood of $12 million in inflation alone.

Throughout the history of P.L. 92-500, EPA has applied regulations to projects retroactively. The review of treatment levels as discussed above is a classic example of this, although in this particular case this retroactive application was required by Congress. In addition, EPA has a history of generating Program Requirements Memoranda (PRMs), which carry the impact of regula-

tions but are not required to undergo a public review and comment period prior to becoming effective. These have also been applied retroactively in many instances. Such retroactive application for regulations and requirements often delays projects, generally accomplishes little or nothing, and adds to the frustration of the grantee, consultants and State agencies who are trying to complete the projects in order to achieve water quality standards.

Prior to the passage of the Clean Water Act in 1977, the Georgia Environmental Protection Division had several review and approval functions of the Construction Grants Program delegated from EPA through specific signed agreements. These included review and approval of plans and specifications, change orders, operation and maintenance manuals, and sewer use ordinances. In order to carry out these and other non-delegated grant functions, EPD utilized Section 106 funds for administration of the Construction Grants Program. Since 1974, the funds have been utilized as follow:

| Fed. Fiscal Year | Section 106 Funds Available (Federal) | Section 106 Funds Used to Manage Construction Grants Program (Federal) | (Matching State Funds) |
|---|---|---|---|
| 1974 | $1,406,327 | $ 66,497 | $ 73,999 |
| 1975 | 1,246,499 | 183,253 | 96,681 |
| 1976 | 1,246,499 | 333,753 | 72,575 |
| 1977 | 1,402,313 | 473,735 | 307,820 |
| 1978 | 1,632,900 | 550,221 | 283,293 |
| 1979 | 1,632,900 | * | * |

* No Section 106 funds were utilized for administration of the Construction Grants Program in FFY 1979. The program was administered wholly through a Section 205(g) grant in the amount of $1,747,620 for FFY 1979 and FFY 1980.

There is no way to accurately delineate the specific amount of Section 106 funds which can be attributed to management of the various steps from FFY 1974 through FFY 1978. We would estimate that, from FFY 1974 through FFY 1976, approximately 80% of our grant-related effort was devoted to Step 1 management, 10% to Step 2, and 10% to Step 3; for FFY 1977 through FFY 1978, approximately 75% to Step 1, 15% to Step 2, and 10% to Step 3. Under our 205(g) grant, we are now required to maintain a comprehensive time management system. This system indicates that, during FFY 1979, approximately 67% of our grant-related effort was devoted to Step 1, 17% to Step 2, and 16% to Step 3. As more projects move from the planning to the design and construction phases, we would expect our emphasis to continue to swing toward management of the Step 2 and Step 3 functions.

The passage of the Clean Water Act of 1977 encouraged the State of Georgia to seek delegation of authority for administration of the Construction Grants Program from EPA. Section 101 of the Act stated that "It is the policy of Congress that the States manage the construction grants program under this Act." We began negotiating with EPA Region IV for these delegations immediately following passage of the Act, and finally reached agreement on the basic terms and conditions with the execution of an "umbrella" agreement on October 27, 1978. Twelve functional agreements were executed on November 27, 1978, one on

April 12, 1979, and five on May 4, 1979, bringing the total number of officially delegated functions to eighteen. Thus, Georgia has received official delegation for administration of the entire Construction Grants Program with the exception of interim and final construction inspections (delegated to the Corps of Engineers) and certain functions which cannot be delegated, including environmental impact statement and civil rights determinations.

Please note the use of the terminology used above in describing the delegations as "official" delegations. Our experience to date has been that these EPA delegations are on paper only. EPA has tended to disregard the delegation agreements since their execution, and continues to duplicate State reviews and second-guess our decisions on many important matters. If anything, the delegation agreements have resulted in State personnel performing many administrative tasks which were previously handled by EPA staff, thereby freeing up the time of the EPA staff to become more involved in technical issues. This has led to a great deal of second-guessing by EPA, resulting in additional delays to the Construction Grants Program. Through its disregard for the terms of the delegation agreement, EPA has actually caused the processing of documents to be slowed down, when the intent of the delegations was to speed up the process. It should be noted that our staff is much larger and has significantly more cumulative experience in managing the Construction Grants Program than does EPA's Ga State Section. We believe EPA should maintain an overview position when the responsibilities are delegated to the States, but this can be accomplished with much less than complete duplication of the review process.

There are several courses of action which are recommended in order to streamline the Construction Grants Program. First, the review of projects involving treatment levels greater than secondary should be delegated from EPA Headquarters to Regions and States which have demonstrated their ability to perform these reviews. Second, in order for this and any other delegation to work, EPA must truly delegate responsibility for administration of the program to States which have demonstrated the ability to handle this responsibility and to abide by those delegations. EPA Regional Office staff members and mid-level management must not be allowed to undermine the intent of Congress by sabotaging the delegation process. Third, efforts should be directed toward requiring advanced notice of the EPA regulations and requirements rather than applying such regulations and requirement retroactively.

We appreciate the opportunity to provide comments for the record of your hearings, and hope that they will be of use to you in formulating procedures to streamline the Construction Grants Program. If we may be of any assistance to you in your efforts, or if you have any questions or require any further information, please do not hesitate to call.

Sincerely,

J. Leonard Ledbetter

J. Leonard Ledbetter
Director

JLL:jcdw

cc: P. Traina-EPA

ILLINOIS EPA

**Environmental Protection Agency**
**2200 Churchill Road, Springfield, Illinois 62706**

217/782-2027

Comments on USEPA Recommendations

DEC 1 8 1979

Subcommittee on Oversight and Review
United States Congress
Washington, D.C. 20515

Attention: Steve Abrams

Dear Mr. Abrams:

We appreciate the opportunity to provide assistance as was requested in Congressman James C. Cleveland's letter of November 16, 1979 to Ms. Robbi J. Savage, Executive Director of ASWIPCA. The format of our hurried response includes an item by item discussion of the table provided with Congressman Cleveland's letter, followed by a brief explanation how USEPA is applying that provision. We then discussed what part of the particular requirement creates a problem and make recommendations as to how an improvement can be made.

As you read these comments, you will note that there are two general theme.

1. Lessening the requirements for small towns and;

2. Once a facilities plan is approved for a project no futher retroactive requirements should be applied throughout the construction grants process.

We have taken the liberty to add additional items which were included with our streamlining effort previously presented to Congress.

Again we appreciate the opportunity to be of service.

Sincerely,

Michael P. Mauzy
Director

MPM:TRW:dw/1379b-11

cc: Robbi J. Savage
Todd Cayer, Region V

Step 1 Requirements

1. STATE WATER QUALITY OBJECTIVES AND AWT REVIEW

Current Practice -- All construction grant projects with AST/AWT costs greater than $3 million require a review by USEPA headquarters in Washington. Time delays with duplicative reviews as well as real and inflationary dollars are lost. (Reference - The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) "Recommendations for an Improved National Water Quality Program" dated May, 1979, pages 24-27 and IEPA Testimony to Congressional Oversight Committee on Public Works November 28, 1979.)

In effect, Illinois and other states are being penalized for water quality objectives through the Federal AST review, even though these State Water Qualtiy Standards are a result of innumerable studies and regional experience over the past, and have been approved by USEPA. (Reference Congressional Testimony.)

Proposed Change -- A very detailed critique of the current Federal AWT policy has been provided in previous IEPA statements to the subcommittee.

2. I/I DOCUMENTATION

Current Practice -- Officially, rehabilitating infiltration sources is considered as feasible as the cost-effective rehabilitation of inflow sources. Lengthy sewer surveys at high cost are required for infiltration sources, while most rehabilitation techniques have questionable long term reliability. USEPA program policies continue to discourage construction of adequate treatment capacity for infiltration and push grantees in the direction of infiltration removal programs despite delay, cost, legal, and technical problems associated with such efforts.

Proposed Change -- Require evaluation of cost-effective rehabilitation of inflow sources only. Experience has shown this to be, as a general rule, more cost-effective than efforts to rehabilitate infiltration, and with surer results. Sewer survey costs would be reduced about 2/3 because sewer cleaning and televising would be largely deleted, and Step 1 schedules could be reduced from six months to a year. In most cases, an inflow survey could run concurrent with Step 2. Since inflow removal techniques are much more reliable than infiltration removal methods, the failure rate of completed projects should be reduced by simply providing the necessary capacity for treating infiltration.

In addition, also reference ASIWPCA recommendations dated May, 1979, pages 38-40, which discusses other problems associated with I/I Analysis.

63-985 O—80——43

3. COST-EFFECTIVENESS

Current Practice -- Federal requirements specify that a range of alternatives, including biological and physical/chemical treatment systems, must be evaluated for cost-effectiveness. This is reasonable, as it permits latitude for local engineering judgement in selecting likely alternatives for study. However, over the years the USEPA has added specific technologies which must be evaluated in all cases regardless of their apparent feasibility. Land application, for example, must be studied in its various forms in all Step 1 projects regardless of its historic infeasibility in an area. (Reference ASIWPCA recommendations on land application, page 56)

Federal regulations governing cost-effectiveness analysis have been remarkably insensitive to the differences between small and large communities. Small towns have even more mandatory requirements for alternatives to be evaluated than do large cities. The emphasis for small towns should be to simplify the process by streamlining whenever possible. The process has become so disproportionately costly and time consuming for small towns, that many are now questioning whether there is any real economic benefit in seeking grant assistance. They are, in fact, being denied their proportionate fair share of grant benefits by a program that is administratively geared for large communities that can afford the tremendous "overhead" costs of complying with the increasingly complex planning requirements.

Proposed Change -- Delete all requirements for mandatory evaluation of specific alternatives, as the technical feasibility and cost-effectiveness of treatment alternatives varies widely across the nation, relative to a great variety of variables ranging from local agricultural practice to local energy availability and cost. Mandatory evaluations of alternatives carried out solely to meet federal motives typically cost a third or more of the time and money that go into a cost-effectiveness analysis.

A separate and streamlined set of planning requirements should be developed for small towns. Communities under 2,500 P.E. should, for instances, be permitted to assume cost-effectiveness for a given technical alternative, or at worst select from a limited set of alternatives which have been shown on a historical basis to be cost-effective for small towns in that state. This would eliminate the need to go through the excercise of evaluating a full range of alternatives, many of which everyone knows will not be cost-effective. Small communities utilizing stabilization ponds for treatment (by far the most common technology for small towns in the Midwest) should be permitted to assume that it is cost-effective to transport and treat excess flows from both separate and combined sewers without being subject to the complex, costly, and time consuming studies presently required. Any unsewered small community

entering the grants program with the express purpose of obtaining funds to rehabilitate defective on-site disposal systems should be permitted to simply develop and propose a project without having to go through the excercise of evaluating various conventional sewer and centralized treatment alternatives.

Also reference ASIWPCA Recommendations on page 63.

4. INNOVATIVE/ALTERNATIVE

Current Practice -- Innovative technology is vaguely defined in the regulations, and subject to widely varying interpretation on a nationwide basis. It appears that states with a relatively low historical level of technical sophistication in wastewater engineering manage to qualify rather common, though modern, technologies as "innovative." More advanced states must, under the pressure of having to utilize a mandatory grant allocation set-aside, plunge into full-scale projects utilizing relatively untested, high risk technologies that may in the long run, prove very costly both in real dollars and in negative environmental impact. Of equal concern, the USEPA, by its decision to personally review and render decisions on plans proposing an "innovative" approach, is using this provision to usurp Step 1 decision making authority from delegated states, in violation of legally constituted state-federal agreements. The federal review procedures, moreover, are becoming increasingly cumbersome and time consuming. Currently, "innovative" project proposals already reviewed and approved by Illinois, a state with Step 2 authority, must undergo from two to four additional levels of federal technical review before approval -- or denial, as the case may be.

Proposed Change -- All provisions of P.L.95-217 relating to "innovative" technologies should be repealed, and the "research and development" grant program reinstated instead of the present program. The "alternative" technologies incentives should be retained, but without the mandatory grant allocation set-aside. It is difficult to quantify the savings that would be realized. Our experience indicates that a project involved in an "innovative" proposal will be delayed four to six months or more for additional review. Additional engineering is involved, along with duplicative review by both USEPA and the state agency. Already in Illinois, grantees caught up in this delay have angrily insisted that their projects be funded immediately at the 75 percent funding level for conventional technology. The unreasonable delay involved in getting a project qualitied as "innovative" for an 85 percent grant so increases project costs due to inflation and additional engineering requirements that these communities faced higher rather than lower project costs, a situation entirely contrary to the intent of the "innovative" provisions of P.L. 95-217.

We are gravely concerned that increasing pressures on both state and federal agencies to obligate "innovative" technology grant allotments will result in widespread full scale construction of inadequately developed and tested systems with a disproportionately high failure rate. The law says these may be replaced with 100 percent grant funds. However, those funds do not exist, and would have to be taken out of regular state allotments intended for construction of other needed facilities.

5. ENVIRONMENTAL REVIEW

Current Practice -- It can be taken as a given that no planning for wastewater treatment facilities can be complete without an evaluation of environmental impacts. However, a disproportionate emphasis has been placed on "secondary impacts," primarily the extent to which a project might promote development of an area. USEPA has periodically delayed approval of projects for months over this issue, insisting that alternative sewer routes and plant sites must be evaluated that might lessen the projects impact on development. In some instances, the federal position has been squarely in opposition to locally developed land use plans. This tendency has become more pronounced recently, as states are delegated all Step 1 -- Step 2 activities except for environmental review. Having retained this review function for itself, USEPA appears to be taking an increasingly critical posture towards state and local decisions involving what are really land use issues, and is thereby causing significant delays in the implementation of projects with unquestionably positive water quality benefits.

Proposed Change -- Environmental review should concentrate on a project's direct primary impacts, which are straight forward and subject to an objective appraisal. So called "secondary impact" issues should be avoided as they are generally rather subjective in nature, and dependent on a particular point of view. While the federal government has clearly taken a position in opposition to new development resulting from wastewater projects, local government tends to view such growth as beneficial and a legitimate result of a public wastewater project. Moreover, local government views land use planning to be a local, and not a federal function. The delays and wrangling have been costly in both dollars and program credibility with little hard evidence that worthwhile benefits have been obtained. The federal government should also consider delegating environmental review to the states which, in conjuction with existing A-95 and 208 agency review procedures, are in a position to provide a more sensitive and realistic review than can be provided by a federal agency whose staff has little or no familiarity with the states under their jurisdiction.

6. COSTS AND CHANGES

Current Practice -- Consultants are required to estimate the costs of Facility Planning requirements at the outset of grant projects. Rarely do these estimates remain accurate through completion of Step 1 which results in frequent request for grant increases. These requests for increases are generally a result of changes in the construction grants program (regulations and PRM's) with retroactive application.

As facility planning requirements are added and/or applied retroactively, costs and charges skyrocket because of the inherent inability of consultants to accurately identify the costs and scope of work involved for Step 1. Costs are increased in real dollars as well as dollars lost through inflation for Step 1, 2, and 3 because of the delays incurred in Step 1.

Proposed Change -- Most of the added Facility Planning requirements seldom, if ever, result in a construction project that would not have been built, anyway. The additional Facility Planning requirements simply cause the time necessary to reach the same conclusion (as before the requirements) to increase. It appears that although the number of facility planning requirements and regulations that can be written are infinite, the number of water pollution control options are relatively finite.

For these reasons, it is recommended that retroactive application of facility planning requirements be eliminated and the recommendations contained in this report and elsewhere for streamlining be implemented. These changes to the program could result in a three to nine month savings in project completion in many instances.

Then consultants could accurately define the scope of work for Step 1 projects at the beginning and be reasonably certain they would not change, additional savings in terms of dollars and time could be realized.

7. PUBLIC PARTICIPATION

Current Practice -- The current public participation regulations create a complex, highly structured and inflexible two-tiered public participation program with one set of requirements for some projects and another for others. The criteria for program selection is vaque. USEPA has proven clumsy in its implementation of these regulations by setting quotas for the number of projects to have "full scale" public participation regardless of need. The requirements as implemented by USEPA were retroactive causing months of delay while grantees submitted amended Step 1 applications to meet the new requirements. The costs of meeting "full scale" public participation have run as much as 1/3 to 1/2 of the total anticipated

Step 1 planning costs. "Full scale" public participation can easily be the most costly single element of Step 1 work. Finally, the whole excercise is predicated on the assumption that the Step 1 decision making-process was previously insensitive to public opinion. This is to a great extent not true. State and federal law require a project to meet certain given goals. Since a limited choice of technical alternatives exist in any given instance to meet those goals, and the alternative selection process is rigidly structured by federal regulations, flexibility is very limited.

Proposed Change -- Amend the present regulations to require a minimum public participation effort applicable to all projects, and aimed at keeping the public informed. Public input should be sought on clearly defined issues that are, in fact, subject to local choice; for example, the amount of future growth capacity to be provided. Additional public participation efforts, up to and including all the elements of a "full-scale" program, should be grant eligible, but strictly optional, at the discretion of the grantee. This holds the local public officials accountable and better enables them to minimize costs.

In addition, the present public participation regulations need revision as follows:

a. Public participation costs must be estimated twice, once in the Step 1 application and again in the Detailed Work Plan and Budget after a Step 1 grant award. The second estimate usually means that the grant must be amended, which is costly and time consuming. A single estimate in the Step 1 application should be required, consistent with normal Step 1 practices.

b. Current regulations require a grantee to publish detailed estimates of local costs and user charges for a project prior to the evaluation or selection of alternatives. This is obviously impossible. The requirement is another example of the apparent lack of understanding of the actual workings of the facilities planning and construction grants process by the federal decision makers, and needs to be deleted or changed.

8. RECREATIONAL OPPORTUNITIES

Current Practice -- Current regulations require an evaluation of potential recreational opportunities that may be implemented in conjunction with a wastewater project. Though a laudable concept, it bears no relationship to the goals of P.L.95-217, but costs both time and money to carry out. Furthermore, experience has shown that little need and less interest exists for this concept in all but a relatively few major urban areas.

Proposed Change -- Mandatory evaluation of recreational opportunities should be deleted from Step 1 requirements. It may be left as a grant eligible option for communities desiring to pursue it.

9. REQUIREMENT: PRETREATMENT

Current Practice -- 40 CFR 35.920-3 requires that certain aspects of the pretreatment program must be approved prior to June 30, 1980 and December 31, 1980 before issuance of Step 2 and Step 3 grants respectively.

Proposed Change -- Although no delay has occured, the present uncertainties of the pretreatment program will undoubtedly and inevitably cause delays. The implementation dates for Step 2 should be extended approximately six months to a year with a minimum of twelve months between Step 3 implementation date. This could prevent a six to twelve month delay without adversely impacting the implementation of the pretreatment program.

Also reference ASIWPCA Recommendations concerning pretreatment on pages 18-20.

10. COMBINED SEWER OVERFLOW POLICY AND PROCEDURES

This very significant part of a Facility Plan for communities with a combined sewer systems was absent from the list of grantee responsibilities.

Current Practice -- Present federal policy governing planning and implementation of sewer overflow control is specified in PRM75-34. The intent of this policy is that the cost of combined sewer overflow (CSO) control must be justified by the water quality benefits which result. The definition and interpretation of "water quality benefits" are both highly subjective. To date, no one has been able to define a reasonable measure of "water quality benefits" which can be determined without substantial (in terms of time and cost) data gathering and computer simulation techniques. This cost/benefit analysis is required for every community, regardless of size. There is not a simplified, inexpensive, yet reasonably accurate method that a small community with limited technical and financial resources can use to do the required analysis.

The results and conclusions of the study required by PRM75-34 can be contradictory to Illinois water quality and effluent standards (IPCB Illinois Pollution Control Board Chapter 3 Rule 602). If so, the community must seek a variance or rule change from the IPCB; this variance procedure can be costly, time consuming, and result in significant delays in construction. If a variance or rule change is required, substantial documentation is needed to get this variance. The result is that, when a community begins a CSO study, they feel that it must be of sufficient scope (therefore costly and time consuming) to both satisfy federal requirements, and justify a variance or rule change. In fact, one Illinois community has shown that doing the CSO study (including inflation costs due to delayed construction) is more costly than simply complying with Rule 602, and would probably result in greater pollution levels than compliance with Rule 602.

Furthermore, it is anticipated that in many instances the results of the CSO study will indicate that from the federal cost/benefit perspective, the level of treatment that should be provided (and that will be eligible for grant funds) may result in continued water quality standard violations. Again, this is contradictory to Illinois Environmental Protection Act and P.L. 95-217. This implies that USEPA disagrees with our water quality standards, when in fact, they have explicitly endorsed them.

Proposed Change -- The state should formulate, and USEPA should accept, a set of standards for combined sewer overflows. These standards should take into account both community size and receiving stream dilution (these two factors together provide a measure of water quality impact of combined sewer overflow). These standards would eliminate entirely the need for the costly and time consuming CSO studies.

These standards would replace or supplement Rule 602, which would require a regulation change by the IPCB. Until such change could be effected, USEPA should exempt smaller communities from the PRM75-34 analysis and fund treatment (in these cases) to the level specified by Rule 602. This is not an unreasonable level of treatment, as evidenced by the fact that several communities have conducted CSO studies per PRM75-34 for thousands of dollars, and determined the degree of treatment that should be provided from the cost/benefit perspective, is very nearly the same as that specified by Rule 602.

## Step 2 Requirements

1. AWT JUSTIFICATION

This is an addition under Step 2 responsibilities because, as being implemented by USEPA, the AWT requirement has caused extensive delays for projects that are under design.

Current Practice -- As retroactively applied to Step 2 projects, review provides for re-evaluation on previously approved design functions which could result in redesign costs and delays in project from six to twelve months.

Proposed Change -- Change policy to include only those AST projects which have not received a Step 2 grant offer and as such have not initiated the design or AWT projects.

2. PRETREATMENT

Pretreatment should also be inluded in Step 2 since it also causes problems at this point (see discussion under Step 1).

Step 3 Requirements

1. HOMETOWN/IMPOSED PLAN

Current Practice -- Confusion exists as to what is required in the plans and specifications to procedurally comply with Hometown/imposed Plan, since changes as appearing in the October 20, 1978 Federal Register have taken place.

Proposed Change -- Resolve the indecisiveness and provide guidance in order to alleviate confusion. No significant delays have occurred but the potential exists.

2. OPERATION AND MAINTENANCE MANUAL

Reference ASIWPCA Recommendations pages 57 and 58.

Incorrect Listings Under Step 2 Responsibilities

1. SEWER EVALUATION

Comment -- It is normally a Step 1 function since only under an exception (40 CFR 35.927-5(c) can design proceed prior to its completion.

2. ENVIRONMENTAL MITIGATION

Comment -- This is a Step 1 function since no design grant should be issued for that which might adversely affect the environment.

Incorrect Listings Under Step 3 Responsibilities

1. INTERMUNICIPAL AGREEMENT

Comment -- In a regionalization project this is a requirement prior to issuance of a Step 2 grant to avoid design of a non-implementable alternative.

In summary, everchanging and increasingly complex rules and regulations are on a collision course with any attempts to shorten project completion time in the grant programs.

Any serious commitment to decreasing project completion time needs to include the simplification of present requirements with a decrease in the promulgation of new regulations and guidelines.

TZ:mam/sp1555b/1-9

C. Frank Harscher, III
Secretary

Julian M. Carroll
Governor

COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
CENTURY PLAZA
1065 U.S. 127 BYPASS SOUTH
FRANKFORT, KENTUCKY 40601

December 10, 1979

Ms. Robbi Savage
Executive Director
ASIWPCA
Hall of the States
444 N. Capital Street
N.W. Suite 330
Washington, D.C. 20001

RE: Representative Cleveland's Letter
of November 16, 1979

Dear Ms. Savage:

We are pleased to respond to the request by the Subcommittee on Oversight and Review on requirements of the Municipal Construction Grants Program.

Congressman Cleveland's chart of grantee responsibilities contains several requirements which we feel to be unnecessary. However, the most significant delays in plodding the path from Step I application to completion of construction are almost entirely administrative. Specifically:

LACK OF PERSONNEL - EPA is projecting the following project commitments for FY 80 as compared to the state priority list commitments as in parentheses:

Step 1 - 6 (10)
Step 2 - 15 (34)
Step 3 - 12 (22)
Step 4 - 5 ( 6)

AST/AWT - The following Kentucky projects are being delayed by the retroactive requirements to justify AST:

Midway (4)
Nicholasville (3)
Lawrenceburg (3)
LaGrange (2)
Florence (2)
Shelbyville/Shelby County (2)
Elizabethtown (3)
Stanford (4)
Richmond (3)
Murray (2)

PRIORITY LIST/GICS - Almost a full quarter of the funding year has already been lost because of the requirement that the priority list not be approved until it is entered into GICS.

EIS - The high priority Louisville-Jefferson County project has almost been completely stalled because of the belated EPA decision to require an environmental impact statement.

UC/ICR - The Okolona rehabilitation project has been delayed for months because of the requirement that the UC/ICR be developed before Step 3 funding. This in spite of the fact that Okolona is to be covered by the Louisville-Jefferson County MSD UC/ICR system.

A-95 REVIEW - The Millersburg Step 3 project has been delayed over a year because of the EPA requirement for post 201 plan A-95 review. The environmental objections have now been resolved without significant project changes.

Although Kentucky is moving toward state assumption of the municipal construction grants program under 205(g), we are concerned that redundant EPA review of delegated functions will create further delays.

We trust that this information will aid ASIWPCA in responding to Mr. Cleveland's request.

Sincerely,

Robert E. Blanz, Director
Division of Water Quality

REB:cw

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

December 21, 1979

A. C. Knight, M.D., F.C.C.P.
Director

Steve Abrams
Subcommittee on Oversight and Review
U.S. House of Representatives
B-375 Rayburn House Office Bldg.
Washington D.C. 20515

Dear Mr. Abrams:

This is in response to the EPA Chart of Grantee Responsibilities required in Steps I, II, and III. I have been involved in the construction grant program since 1956 and have seen it grow from a simple program to one that has become somewhat of a monster.

We have found the major delays in the Step I program. These delays could be previously blamed on everyone involved directly with the program:

1. The consultant-many were slow in learning the requirements and some also refused to accept the fact that they needed to follow regulations in order for the project to be approved. Also some of the consultants were not geared up to handle the number of projects which they had. We beleive this has now been pretty well corrected.

2. The state-until assuming additional responsibilities under Section 205 (g) we were greatly under staffed and fell behind on our project reviews. We now have a staff capable of keeping up.

3. The EPA-EPA has not been able to keep up, partially due to insufficient manpower. Presently, they are doing dual review of projects which slows things considerably plus sometimes leading to state-EPA conflicts. We would suggest that their role in the Step I process be minimized and a restrictive time limit be placed on their environmental reviews.

In addition we have seldom found that I/I work is effective unless complete replacement of lines takes place. Excessive time is being spent on documentation, especially on smaller projects.

On Step II we are not experiencing too much delay and one year is probably the maximum for completing this step. The office of Civil Rights is somewhat slow which often results in delay of the Award of the Contract. Probably the principle problem that we see in this area is our own Public Service Commission which establishes sewer rates. They are very slow in handling rate increase requests.

On Step III the final audits are often made several months or years after the project is completed. However, EPA should be complimented on their speedup in processing of payment requests which was at one time one of the principle complaints against the program.

Overall I see the program moving at a better speed than a year ago and am optimistic that things will get better. EPA's new policy on minimizing the effect of new regulations on projects in progress should help greatly.

If you have any questions, please let me know.

Sincerely yours,

Donald G. Willems

Donald G. Willems, Administrator
Environmental Sciences Division

DGW/jt

The State of New Hampshire

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Water Supply and Pollution Control Commission
Prescott Park
P.O. Box 95-Hazen Drive
Concord, N.H. 03301

STAFF
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Executive Director
RICHARD P. GROSSMAN, P. E.
Deputy Executive Director
and Chief Engineer

December 12, 1979

Ms. Robbi Savage
Executive Director
ASIWPCA
444 North Capitol Street, N.W.
Washington, D.C. 20001

Subject: Subcommittee on Oversight and Review

Dear Robbi:

Bill Healy has asked me to respond on behalf of this agency to Congressman James C. Cleveland's letter to you dated 16 November 1979.

We concur with the testimony that, in the past, a good deal of increased time for Step 1 duration was a result of administratively imposed requirements by EPA HQ that the grantee had to meet. A prime example was the issuance of I/I regulations on 28 February 1973 which were effective for grants made after 1 July 1973. The timing of these regulations did not permit any of the towns in New Hampshire to appropriate any funds for I/I work at their March 1973 Annual Town Meeting (all warrant articles must be published in early February). Thus, all towns were set back one year for Step 1 work.

Another recent administrative action was the increase from 30 to 45 days for the required notice for public hearings.

It is our belief that EPA HQ, by relying on the GICS system, may be presenting a bleaker picture of extended Step 1 delays than in fact exist. Enclosed are two sheets from that system covering New Hampshire projects. Because a project is not recorded as "completed" until the final grant payment is made, the impression is given on the summary sheet that projects may be being delayed. On many Step 1 projects, the Facilities Plan has been approved but the grant held open to do SSES work or additional studies. Note that this is the case on the second sheet where the City of Keene has already done some Step 3

work while neither the Step 1 nor the Step 2 project is yet closed out. There are a number of similar projects in this State. Another interesting item relative to the GICS system is that here in New Hampshire, we have a project with this agency as the Grantee, where two Step 1 projects have already generated twenty-two Step 2 and 3 projects, with at least two more Step 2 and five more Step 3 projects to come in future years.

We have managed to live with the ever changing Grantee Responsibilities, the most recent of which is not shown on the attachment to Congressman Cleveland's letter; that of implementing Region I EPA Minority Business Enterprise Policy, which is now included under all three steps. By establishing good working relations with Region I EPA Construction Grants and OCRUA staffs, we have been able to minimize delays which could have been imposed with the MBE requirements.

We have in the past commented on almost all EPA proposed regulations, and we intend to continue that practice. We disagree with EPA HQ evaluation of the numbers of projects where delays are attributable to failures of grantees to meet responsibilities. In most cases, those delays are the results of the ever changing regulations, PRM's, POM's, and other policies issued by EPA HQ coupled with the New Hampshire form of town government; neither of which can be controlled by grantees.

Most of the Grantee Responsibilities shown are required by law or Congressional action. We are on record on several occasions as opposing Value Engineering, not a requirement by law.

In conclusion, it is our belief that the program in New Hampshire is moving and will not suffer from delays due to various legislatively and administratively imposed requirements a grantee must meet in each of the three steps of the grant process. The only factor retarding more significant progress in the program is the lack of Federal funding currently available, and the uncertain future Federal funding levels. As of this date, excluding the mandated set-asides, the balance of the New Hampshire FY 79 allocation is about $130,000. This figure presumes that two grants and several grant amendments at Region I will be made shortly.

We trust that the above will be of assistance to you and the Subcommittee on Oversight and Review. If you have any questions or need additional data, please do not hesitate to contact us.

Very truly yours,

Robert A. Seufert, P.E.
Civil Engineer

RAS/hyv
Enclosures
cc: Congressman James C. Cleveland
Mr. Charles W. Murray, Region I EPA
Mr. Alfred E. Peloquin, NEIWPCC

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REPORT: GICS2.GA37

CONSTRUCTION GRANTS PROGRAM
CONSTRUCTION STATUS
AS OF 79/10/25

(DOLLAR AMOUNTS ARE IN THOUSANDS)

| STATE | PROJECTS AWARDED UNDER PL 92-500 STEP 1 | STEP 2 | STEP 3 | TOTAL | TOTAL PL 92-500 PAYMENT | PROJECTS COMPLETED UNDER PL 92-500 STEP 1 | STEP 2 | STEP 3 | TOTAL | ACTIVE PROJECTS UNDER PL 92-500 STEP 1 | STEP 2 | STEP 3 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT | $9559 | $11501 | $349286 | $370426 | $202402 | $1211 | $2587 | $37536 | $41334 | $8348 | $8996 | $311750 | $329092 |
| | 71 | 46 | 90 | 207 | | 14 | 18 | 19 | 51 | 57 | 28 | 71 | 156 |
| MA | $14376 | $28057 | $720680 | $763113 | $461803 | $708 | $11380 | $25302 | $37470 | $13668 | $16677 | $695298 | $725643 |
| | 110 | 98 | 134 | 350 | | 12 | 42 | 15 | 69 | 108 | 56 | 119 | 281 |
| NE | $3128 | $4637 | $105575 | $193340 | $149070 | $400 | $257 | $19122 | $19787 | $2720 | $4398 | $166453 | $173553 |
| | 89 | 24 | 51 | 164 | | 12 | 2 | 14 | 28 | 77 | 22 | 37 | 136 |
| NH | $3084 | $13773 | $207596 | $224451 | $132914 | $1909 | $6086 | $20770 | $28845 | $1096 | $7687 | $186824 | $195606 |
| | 62 | 75 | 71 | 208 | | 41 | 34 | 26 | 101 | 21 | 41 | 45 | 107 |
| RI | $2714 | $4529 | $119069 | $126312 | $70720 | $864 | $1005 | $10624 | $12493 | $1850 | $3524 | $108445 | $113819 |
| | 17 | 12 | 29 | 58 | | 3 | 5 | 8 | 16 | 14 | 7 | 21 | 42 |
| VT | $2297 | $4336 | $69319 | $75952 | $46654 | $522 | $2580 | $16653 | $19955 | $1775 | $1756 | $52466 | $55997 |
| | 37 | 32 | 54 | 123 | | 11 | 22 | 23 | 56 | 26 | 18 | 31 | 67 |
| REG 1 $ | $35158 | $66913 | $1651523 | $1753594 | $1064571 | $5702 | $23895 | $130287 | $159884 | $29456 | $43018 | $1521236 | $1593710 |
| # | 394 | 287 | 429 | 1110 | | 93 | 123 | 105 | 321 | 301 | 164 | 324 | 769 |

EXPLANATORY NOTES :

1. COMPLETION IS DEFINED AS EPA APPROVAL OF PHYSICAL COMPLETION
2. STEP 3 TOTALS INCLUDE STEP 4 (COMBINED STEP 2/3 PROJECT) VALUES
3. EACH STATE IS ENTITLED TO OBLIGATE A MAXIMUM OF $500,000 FOR CONSTRUCTION OF TRAINING FACILITIES (STEP 9). STEP 9 GRANTS ARE NOT INCLUDED ON THIS REPORT.
4. EACH STATE IS ENTITLED TO OBLIGATE A MAXIMUM OF 2% OF EACH FISCAL YEARS ALLOTMENT BEGINNING WITH THE FISCAL YEAR 1978 ALLOTMENT, FOR STATE MANAGEMENT ASSISTANCE GRANTS(SMAG OR STEP 8). SMAG'S ARE NOT INCLUDED IN THIS REPORT

11-05-79

GRANTS INFORMATION AND CONTROL SYSTEM

STATE: NH REPORT: GICS2.C001-B

| GRANT NO | STEP | APPLICANT NAME | ABAND DATE | CUMULATIVE EPA SHARE | ACTION LU & UT | INITIAL CONTRACT | EST PROJ COM DATE | CUMULATIVE PAYMENTS | PERC COMP | LATEST PAY DATE | WORKS IN OPERATION | PROJ CL-OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33000076 | 0 | NEW HAMPSHIRE WA | 78-10-06 | 192,900 | FP781806 | | | 151,887 | 19 | 79-07-13 | | |
| 33000079 | 0 | NEW HAMPSHIRE WS | 79-06-19 | 129,700 | FP790619 | | | | | | | |
| 33009201 | 4 | LEBANON, CITY OF | 73-03-01 | 5,081,700 | FP7100301 | 74-07-11 | 76-07 | 5,049,200 | 99 | 77-11-21 | | |
| 33009301 | 3 | MANCHESTER, CITY | 73-06-28 | 10,570,000 | FP7300228 | 73-09-20 | 76-07 | 15,530,000 | 98 | 77-09-27 | | |
| 33009302 | 3 | MANCHESTER, CITY | 74-07-17 | 9,999,725 | FP7400717 | 75-11-17 | 77-08 | 7,994,600 | 80 | 78-03-02 | | |
| 33009401 | 3 | CHESHIRE, THE CO | 73-06-29 | 206,250 | FP7300313 | 73-10-23 | 75-03 | 204,220 | CP | 76-09-01 | | |
| 33009501 | 3 | FARMINGTON, TOWN | 73-11-13 | 1,062,500 | FP7300625 | 74-07-25 | 76-07 | 900,000 | CP | 79-01-26 | | |
| 33009601 | 3 | DURHAM, TOWN OF | 73-06-29 | 84,675 | FP790628 | 73-10-19 | 74-05 | 50,908 | CP | 75-06-20 | | |
| 33009701 | 3 | BUCKINGHAM, COUN | 73-12-13 | 103,000 | FP7310318 | 74-06-21 | 76-07 | 102,000 | 99 | 79-03-05 | 75-05-15 | |
| 33009801 | 3 | WOLFEBORO, TOWN | 73-12-28 | 1,410,800 | FP7312628 | 74-07-09 | 76-07 | 1,298,400 | 95 | 77-01-12 | | |
| 33009802 | 4 | WOLFEBORO, TOWN | 74-09-27 | 2,123,250 | FP7409027 | 76-03-03 | 77-10 | 2,013,000 | 95 | 79-03-06 | 77-09-01 | |
| 33009901 | 3 | SALEM, TOWN OF | 74-01-21 | 148,090 | FC761209 | 74-07-08 | 75-09 | 148,090 | CP | 75-09-25 | | 76-12-09 |
| 33010001 | 3 | DERRY, TOWN OF | 74-02-01 | 229,900 | FW7012608 | 74-09-04 | 76-12 | 171,200 | CP | 76-12-08 | | |
| 33010101 | 3 | HAMPTON, TOWN OF | 74-10-31 | 561,890 | FW7002208 | 75-02-26 | 76-02 | 443,600 | CP | 76-02-20 | | |
| 33010102 | 3 | HAMPTON, TOWN OF | 78-03-13 | 2,385,100 | FP780313 | 79-07-26 | 77-06 | 2,265,000 | 95 | 77-09-24 | | |
| 33010201 | 3 | STRAFFORD, COUNT | 74-05-13 | 113,115 | FC7900822 | 75-02-04 | 76-07 | 113,115 | CP | 77-06-15 | | 79-08-22 |
| 33010301 | 3 | HENNIKER, TOWN | 75-01-24 | 9,203,700 | FP7501424 | 75-05-22 | 77-08 | 8,757,700 | 97 | 77-09-07 | | |
| 33010401 | 3 | ALLENSTOWN, TOWN | 74-09-13 | 4,076,250 | FW7700224 | 75-02-04 | 76-07 | 3,201,000 | CP | 77-08-24 | | |
| 33010501 | 3 | PEMBROKE, TOWN O | 74-09-12 | 1,599,800 | FW7700424 | 75-02-14 | 76-07 | 1,443,000 | CP | 77-08-24 | | |
| 33010601 | 3 | PORTSMOUTH, CITY | 75-03-12 | 1,310,700 | FP750313 | 75-06-14 | 76-08 | 1,048,500 | 90 | 77-05-09 | | |
| 33010701 | 3 | HENNIKER, TOWN O | 76-07-30 | 150,527 | FC7702615 | 75-01-24 | 75-12 | 150,527 | CP | 76-05-18 | | 77-02-19 |
| 33010801 | 3 | GREENVILLE, TOWN | 74-07-10 | 1,647,000 | FW771104 | 75-02-28 | 77-02 | 1,007,300 | 97 | 78-02-16 | | |
| 33011001 | 1-- | KEENE, CITY OF | 73-02-27 | 163,133 | FW700120 | | 76-03 | -179,500 | 90 | 78-09-18 | | |
| 33011002 | 2-- | KEENE, CITY OF | 77-02-01 | 608,497 | FP780727 | | 79-01 | 547,600 | 90 | 79-06-01 | | |
| 33011003 | 3-- | KEENE, CITY OF | 78-09-06 | 982,163 | FP780906 | 78-11-17 | 79-03 | 918,000 | 80 | 79-03-06 | | |
| 33011101 | 2 | BERLIN, CITY OF | 75-04-16 | 751,875 | FD770304 | 76-12-16 | 76-07 | 734,600 | 90 | 79-01-26 | | |
| 33011102 | 3 | BERLIN, CITY OF | 77-02-28 | 14,963,275 | FP770228 | 77-07-06 | 80-05 | 10,019,100 | 78 | 79-09-21 | | |
| 33011201 | 2 | HUDSON, TOWN OF | 75-11-07 | 224,375 | FC760908 | | 76-04 | 224,375 | CP | 76-04-28 | | 76-09-08 |
| 33011202 | 3 | HUDSON, TOWN OF | 76-08-31 | 5,087,450 | FP760831 | 77-08-08 | 79-06 | 3,977,900 | 69 | 79-02-26 | | |
| 33011301 | 1-- | GOFFSTOWN, TOWN | 75-06-10 | 90,375 | FD770224 | | 76-02 | 81,340 | CP | 76-10-17 | | |
| 33011302 | 2-- | GOFFSTOWN, TOWN | 77-04-20 | 318,000 | FP770426 | | 78-09 | 249,000 | 69 | 78-08-09 | | |
| 33011401 | 1 | CLAREMONT, CITY | 75-06-05 | 78,300 | FC7611115 | 77-05-13 | 76-04 | 78,300 | CP | 76-01-18 | | 78-11-15 |
| 33011402 | 2 | CLAREMONT, CITY | 78-04-03 | 535,253 | FP780403 | | | 413,400 | 77 | 79-02-18 | | |
| 33011501 | 1 | HANOVER, TOWN OF | 75-09-16 | 68,250 | FC790502 | | 76-07 | 30,250 | CP | 77-12-20 | | 79-05-02 |
| 33011502 | 2 | HANOVER, TOWN OF | 78-03-21 | 243,179 | FW7910 | | | 184,500 | 76 | 79-09-25 | | |
| 33011503 | 3 | HANOVER, TOWN OF | 79-06-29 | 1,244,891 | FP790629 | | | | | | | |
| 33011601 | 1 | MILFORD, TOWN OF | 75-05-28 | 59,147 | FC7706097 | | 76-05 | 59,147 | CP | 77-02-17 | | 77-06-09 |
| 33011602 | 2 | MILFORD, TOWN OF | 77-04-29 | 489,025 | FW790119 | | 79-02 | 361,900 | 75 | 78-08-17 | | |
| 33011603 | 3 | MILFORD, TOWN OF | 79-02-20 | 11,715,475 | FP790220 | 79-07-19 | | 900,500 | 08 | 79-09-13 | | |
| 33011701 | 1 | WILTON, TOWN OF | 75-09-22 | 33,893 | FC770601 | | 76-04 | 33,893 | CP | 77-02-17 | | 77-06-01 |
| 33011702 | 2 | WILTON, TOWN OF | 77-08-11 | 197,905 | FD781108 | | 79-02 | 53,300 | 27 | 78-09-15 | | |
| 33011801 | 3 | HENNIKER, TOWN O | 76-09-05 | 1,954,501 | FP761208 | 75-06-01 | 76-12 | 1,954,501 | CP | 78-06-05 | | |
| 33011901 | 3 | WARNER VILL. F. | 74-08-28 | 1,931,150 | FW770911 | 79-08-18 | 77-03 | 992,900 | CP | 79-04-30 | | |
| 33012001 | 1 | HILLSBOROUGH, TO | 75-08-29 | 32,360 | FC770623 | | 76-03 | 32,360 | CP | 77-03-16 | | 77-06-23 |
| 33012002 | 2 | HILLSBOROUGH, TO | 79-03-21 | 192,900 | FP790321 | | | 37,100 | 19 | 79-09-29 | | |
| 33012101 | 3 | NEW LONDON, TOWN | 74-12-20 | 110,310 | FW771021 | 75-06-26 | 75-11 | 110,310 | CP | 76-11-04 | | 77-10-21 |
| 33012201 | 1 | ROCHESTER, CITY | 75-09-22 | 74,090 | FC760907 | | 76-04 | 74,090 | CP | 77-08-30 | | 78-04-07 |
| 33012202 | 2 | ROCHESTER, CITY | 78-03-21 | 663,456 | FP780321 | | | 443,200 | 67 | 79-09-07 | | |

Mr. CLEVELAND. Mr. Long, you said after we got this delegation going, EPA turned around and loaded you up with some other requirements, four major requirements, to quote your statement. These are the public participation requirements, regional goals for minority business enterprises, advanced secondary/advanced waste treatment justification, and municipal pretreatment requirements.

Now, one of those items, advanced secondary and advanced waste treatment justification, I believe, was put into the appropriations bill by Congress. We cannot blame that one on EPA. But do you happen to know the genesis of those other three requirements? Were they dreamed up in EPA or was that something that Congress did?

Mr. LONG. First of all, as far as public participation program, it has always been a part of the law and something we absolutely, without any doubt, agree with. But the way the regulations are written, it strings it out into a process that in some cases I feel like it does something other than cost money in certain areas and delays of projects since we have to go back and amend grants to add how many thousand dollars it takes to carry out the program, and we have had an adequate public participation program prior to these new regulations coming out.

Mr. CLEVELAND. What about the other two?

Mr. LONG. The other two?

Mr. CLEVELAND. Minority business enterprise, regional goals for minority business enterprise, is that something Congress put into the picture?

Mr. LONG. It is something that was put in the picture. What our problems were——

Mr. CLEVELAND. If you do not know, I just wanted to know if you knew where some of these things come from.

Mr. LONG. This came from an act which was passed in 1971.

Mr. CLEVELAND. The staff has answered the question. It was an Executive order.

At these hearings, I sometimes get very angry at requirements and then find out I voted for it a year ago.

Mr. LONG. On the advanced waste treatment, advanced secondary and advanced waste treatment, what we have run into riders placed in the appropriations bill apply to AST projects where incremental cost was over $1 million, and these had to be reviewed by the headquarters office. And I think that is about as far as the rider in the appropriations bill states. What in reality has happened is criteria was written and it applies to every project regardless of what incremental cost is, and in many cases incremental cost from secondary treatment to AST costs more to go out and try to justify it than what incremental cost would cost anyway. Because you are looking at a treatment level which there is not much difference in it, and if you delay a project 3 or 4 months to go do this AST justification thing, and it happens, it delays the project this long, sometimes we are talking about incremental costs of $50,000 to $100,000. It costs that much to justify it.

Mr. CLEVELAND. You commented in your testimony that at one of the meetings, I believe it was in Houston, that you heard talk about, with all these requirements that the Feds have loaded you up with, it would be easier to waive your 75 percent and do it

63-935 O—80——44

alone. I do not know if you were here yesterday. We had testimony yesterday from a consulting engineer in Pennsylvania. Were you here yesterday?

Mr. LONG. No, sir, I was not here, but I discussed it with the staff.

Mr. CLEVELAND. For your information, what you heard in Houston was not rumor, because he cited the example of a community up in Pennsylvania that decided it would be much cheaper to waive 75 percent, and they did it in 2 years, and just went right straight ahead without the Federal money.

So the rumors you heard in Houston were not entirely rumors, there were some facts to it. It is a telling fact. It is a shocking fact, it is a very disturbing fact.

Mr. Collins, I want to thank you for your testimony. Yesterday there was considerable talk about the problems facing smaller communities, with the elaborate scheme of things, and the problems of hiring engineers and all that. Then this morning we had Congressman Grassley from Iowa, with his story about the small communities in Iowa.

It was my understanding that in New Hampshire you had worked out a cooperative scheme of things with the small communities, in fact, all communities, and it has helped with this particular aspect. You refer to it in your testimony.

For the benefit of the committee, however, and for the record, could you enlarge slightly on what you have said in your prepared statement as to how the State of New Hampshire has cooperated with small communities to lick some of these problems we are talking about?

Mr. COLLINS. The engineering agreement where EPA certified that our system complied with EPA requirements, this went all the way up to EPA in Washington to get them to approve it. By our State law, our agency actually negotiates the scope and fee with the engineers. We have people who know what the scope should be, and what the fee should be from experience.

I submitted some addendums there, and one of them includes the list of 400-some contracts which were negotiated by our agency, and the savings overall that took place as a result of this.

Mr. MINETA. Would the gentleman yield?

Have you received any kind of resistance or criticisms from the consulting engineers——

Mr. COLLINS. Yes, but they are right back, we have them pounding on the doors. They are not staying out of New Hampshire as a result. I mean there are consultants from New York, Massachusetts, and so forth, coming in.

Mr. MINETA. Has the 1977 provision to set aside 4 percent for smaller communities, has that been utilized, and is that helping in that process?

Mr. COLLINS. No, because we have progressed to the point where the majority of our step 1's and step 2's are pretty much done. You go back and tell these communities they are going to start over again because they might get another percentage, does not help them—they do not want to.

Mr. MINETA. Thank you, Mr. Cleveland.

Mr. CLEVELAND. One other comment that might be helpful, Mr. Collins. You note in your testimony, at the time you were testifying, the new treatment plant up in Franklin for the Winnipesaukee Basin was being dedicated. As I recall, seven communities are going to pipe in——

Mr. COLLINS. Eight communities started originally.

Mr. CLEVELAND. There will be more?

Mr. COLLINS. Two more that right now are completing facilities plan which recommends coming into this system.

Mr. CLEVELAND. This is regional?

Mr. COLLINS. This was done by State legislature, because the towns could not individually all get together, so they had the State agency take it over.

Mr. CLEVELAND. How long did it take to put this all together?

Mr. COLLINS. Legislation was passed in 1972, and all interceptors are in and the treatment plant dedication—there were a lot of grants, and we worked close with EPA on this. They said this program was going to require an environmental impact statement, and we worked out with EPA an agreement whereby they could make their impact statement, while we were going ahead with the design. It was a good decision, because there were no changes in design once the impact statement was out. The only thing the impact statement said was that it would bother mice in the railroad embankments, but they would come back afterwards. It worked good.

Mr. CLEVELAND. This is a success story. In 7 years, get 10 communities into one big regional——

Mr. COLLINS. We did hold the size of the contracts down to roughly $1 million, construction contracts, except for the treatment plant. By this we had a lot of bidders, they were coming from New Jersey, New York, Pennsylvania, and so forth. We are not restricting bidding by doing it. They came from all over, and were awarded to contractors from all over. But as we came out with various other contracts, some of them would be finishing up, and they had this equipment there, and they would come in with good prices for the next ones. This sort of helped things along.

The consulting engineers would do construction administration under step 3, whereas we had our own staff doing residence engineering, and other inspections.

Mr. CLEVELAND. Just one comment or question. Really the problem that the State of New Hampshire now has is set forth rather starkly in your remarks. You now have many communities, 59 communities, that are literally ready to start construction. Everything has been done. All of that junk up on the chart there has been taken care of. But due to the funding only 17 of those get the go-ahead for this year. These other communities that you have urged and browbeaten, and the U.S. Government has pushed into going through step 1, step 2, step 3, having town meetings—the purest form of democracy in America, Mr. Mineta—raised the money, and told, you have to clean up the waters of America, they are now being told, wait, it is going to be 2, 3, 4, 5 years before you get any money. Is that not about the size of it?

Mr. COLLINS. This is it. Mr. Jorling so stated in his statement in June. Here it is.

Mr. CLEVELAND. Mr. Chairman, as far as I am concerned, this is a serious breach of faith on the part of the U.S. Government, to launch a program, tell people they have to go ahead, they go ahead and wade through that morass, and they raise their part of the money, and they are ready to go, and we tell them, sorry, the signals have changed. I think it is unbelieveable, and it is a sad commentary.

I want to conclude, Mr. Chairman, and thank you for indulging me an extra minute or two, we have been largely critical of the EPA program, but there is some good news, because that regional sewer treatment plant we are talking about today is going to help clean up the Merrimack River, and the Atlantic salmon has already started to come up the Merrimack River, and started coming up the Connecticut River. So I would like to conclude on that upbeat. There is some good news.

Mr. COLLINS. We have some good results.

Mr. MINETA. Mr. Levitas?

Mr. LEVITAS. Thank you, Mr. Chairman.

I would like to follow up on Mr. Cleveland's two concluding points. First in the form of a question. When a community commits itself to whatever funding mechanism it uses to provide its match for Federal funding, and then there is a delay in step 3, approval of the awarding of the money, obligating the funds, and inflation takes over, does that also become additional cost to the local community?

Mr. COLLINS. It does. We are back, in some cases, projects are put off a year, because you are waiting for the town to appropriate more funds.

Mr. LEVITAS. It is not just a question, serious as that is, of sort of breaking the commitment, it is also raising taxes on local taxpayers because of inaction by the Federal Government, specifically by the Congress, in appropriating funds.

Mr. COLLINS. This is correct. Our State grant is 20 percent, and we have it in an interesting way. We do not pay them the way EPA grants are made at the construction time. The community bonds cover the State grant along with their own share, and we pay them over the life of their bond issue, which is one way that we tell them to operate. If they do not operate it right, we say we are going to hold up your payment. It has a good effect that way.

Mr. LEVITAS. It seems to me New Hampshire has done an excellent job. It is a success story with many of the innovative ideas you have brought along. I think you have dealt with a problem which Mr. Grassley touched on, and others have, small communities which do not in themselves have the expertise, the knowledge of how to handle these grant applications, how to put together a package, how to negotiate with engineers; and the State, through its resources and technical assistance, really takes the lead and works closely with local communities as a means of getting the program moving at a more efficient and less costly manner—is that essentially how you see what you are doing?

Mr. COLLINS. Yes. We have followed it through. It takes over 100 signatures of someone, whether it is a town attorney, or a selectman, or even EPA, or our agency, to get a project through. If you just send it from one person to the next, you try and figure out

how long that is going to take to get it through. We do a lot of running around, and it has helped in small communities. We have the same problems as in Iowa.

Mr. MINETA. Would the gentleman yield?

You get to the point where because of the inability of the small community to have technical expertise to do the kind of work necessary, you have taken that over, but what about once a project is completed, operationally and maintenance wise, are they able to keep it going?

We heard a figure yesterday that over 50 percent of the plants are not doing what they—they are not meeting their design requirements. Part of it because of design problems, some of it because of operation and maintenance aspects. What is being done in that area?

Mr. COLLINS. We do have a staff on operations—on our staff we have five people. They hit every treatment plant in the State at least once a month, in addition to operators submitting results. We are on call; if an operator has a problem, he always calls up. They have confidence in our people, and so is the operation. If you look at the results, they are generally good. But you have a few upsets now and then.

Mr. MINETA. Those people from the State are doing training of local——

Mr. COLLINS. They are troubleshooting treatment plants. In addition, we have training—well at this Franklin treatment plant, for Winnipesaukee region, under section 109, we have a grant to build a training center.

Mr. MINETA. Thank you very much.

Mr. COLLINS. We are doing a lot of training ourselves. Our operating results show.

Mr. MINETA. Thank you.

Mr. LEVITAS. This question could go to either or both of you. I want to talk about retroactive application of regulations and other requirements of EPA, which you say result in additional delays and higher costs.

Mr. Cleveland was beginning to probe into how many of these requirements, say, in the last year, are a result of EPA discretion, and how many are a result of action required by Congress?

For example, in the 1977 legislation, did Congress mandate certain things be done which the law said shall be done retroactively, or did say it shall be done prospectively only? Are we causing the problem rather than EPA, which is simply carrying out what Congress has required?

Mr. COLLINS. Well, advanced waste treatment, the regulations came out, and they came out with PRM's, which to me carried the requirements beyond the requirements of the regulations of the intent of the law. Now, this is our opinion.

Mr. LEVITAS. I am glad you mentioned that one, because I wanted to pursue that one a little bit. I happen to be very interested in that particular subject matter. Along with Congressman Boland's committee, I felt there was very definitely a need for review of AWT projects because of the tremendous costs, not only in the initial capital outlay, but in operation and maintenance from that

point forward. Therefore, I fully support what the Appropriations Committee has done in that regard.

But I have heard from others, and you allude to it again today, that that became sort of a tag that people in EPA national office used to go beyond simply this review of incremental costs on AWT programs themselves. Could you elaborate on that?

Mr. COLLINS. We have one project that was over 75 percent designed. This regulation, the PRM, came out. The project went to the region and down to Washington, and we find out that it gets six reviews before it gets finished. They have come back on this one and said that we have to redesign part of it now, and remove some of the units that they say are not necessary. They are basing this redesign on a water quality standard, which is not the approved one of the State, which EPA approved. They are reducing the DO requirement in the stream. The delay in that project, this happens to be Rochester, will go on for quite a while I am afraid.

We met with the Washington people on the one that has been all the way down through, and has been signed off by the Administrator, and we said, no, that is not right. In fact, they came up from Washington last week, and Mike Cook and three or four others, who had done the review. We are still negotiating it. It is a time delay. I do not know whether you have lost out on dollars in the times you are delayed.

We have another one, which we had an engineer design with units that could be deleted, because we could see this coming. Now this one has not been resolved as yet. It is not going to be a big redesign, if it is required; it is going to be deduction, let us say, very simple. We knew this ahead of time.

Mr. LONG. The way the appropriations bill, or the riders in the appropriations bill affect projects with incremental costs over $1 million, well we have had only one project that it had to come to Washington for review, and it has been up here for about 60 days. Also, I mentioned earlier, that they are applying this to any project, regardless of size, and the $1 million incremental cost has nothing to do with it as far as PRM is concerned. These others are being reviewed by the regional office, not necessarily the Washington office.

I have one project, city of Webster, and this by the way is a small city also, where they did step 1 and step 2 with their own money to help speed up the process, and they have got a hospital going in along with other demands and they needed the facility right quick, and they have been issued a permit for certain levels since about 1972, in accordance with a State board order approved by EPA. They have spent about 2 years doing their plans and specifications, at a cost of approximately $200,000 to the city. We submitted a step 3 application, and now we have had to put this thing on hold, and it has probably been up there since July of this year.

We had to go do an intensive waste survey, we had to go back and try to rejustify the project. We received a letter that AST probably would not be justified, if that be the case, and we went back and developed some additional information, and I think we are going to be able to justify it in the minds of our EPA regional office. If that city had been required to go back and redesign this system, it would have cost approximately $160,000, and that is

what it would take in this particular project to go back to secondary treatment from the AST level. Because of the way the thing was designed, it would require the community to totally redo it at their expense, because there is no grant at step 2. This would delay the project about a year, and before they could get the plans fixed, redesigned, approved so they could get a step 3 project, the inflationary costs would overtake them—they are, on that particular project alone, something like $800,000. The incremental cost of the additional treatment is $200,000.

But I think after a 3- or 4-month delay in the project, that we have now got that particular project lying back out, and it looks like EPA is going to approve it.

Mr. LEVITAS. I have heard that in some instances cities are now designing these projects, in what I understand is called modular fashion, which as you say, permit components to be pulled in or taken out, without having to redesign the entire project, in the event there is AWT review that says it is not justified.

One of the questions I am going to ask Mr. Costle tomorrow, or he may provide that from his original presentation, I would like to find out the average time frame for 1977, 1978, 1979, it took to meet step 1, step 2, step 3 requirements or approvals.

It is my information, according to information I have received already, that there are more delays today in step 1 and step 2 than there were 2 years ago, as a result of—well, I will not say as a result of, we will wait to see, but there are greater delays today than there were two years ago. Is that your experience?

Mr. COLLINS. I would say there would be if we did not have the delegation, because requirements, additional requirements—facilities plans, instead of being an inch thick, are now 2½ inches thick because of all the various components which have come along, and are listed over here. I do not think there is any question but, yes, there is more work, it is costing engineers, but with the 205(g) delegation, I do not think we have lost time as a result—probably about the same.

Mr. LEVITAS. Mr. Long, you talked about delays resulting from the increasing complexity of the program, on page 3 of your testimony, without a proportionate increase in EPA staff, and which has resulted in substantial delays in processing projects. Are you talking about staff inadequacies at USEPA office in Washington, or the Dallas regional office?

Mr. LONG. What I was referring to, while the regional office had all functions, our construction grant program, our program had grown over the years since the Federal Water Pollution Control Act of 1972, to the point that EPA did not have enough staff to administer the program, and I think that has caused delays. I think that can be eliminated through delegation, assuming they will act in their oversight role, and get out of the program.

What I was trying to point out is the program has grown significantly since 1972, not only in number and dollars, but program requirements. I do not think that EPA staff grew as fast as the program did.

Mr. LEVITAS. One last question, Mr. Chairman.

Mr. Collins, in your testimony you state that you utilize EPA's grant information control system reports afforded to you by region

1, and on a number of occasions pointed out errors or omissions. Do I understand the system EPA uses to advise Congress on the status and progress of the grants program is inaccurate and not up to date, and do either of you happen to know whether this is the same system that EPA uses to tell the Appropriations Committee that there are large unobligated balances of money?

Mr. COLLINS. I think Mr. Jorling, before he left, sent a memo out that they were getting information out of the system which was not correct. We know that last year at the Oversight Committee hearings, there was testimony that said we could not use our money for this year. Now they pulled that out from someplace. After this had been testified to, Mr. Cleveland got a little excited, and came back to us, and we showed where we had $60 million worth of plans all done, sitting on the shelf.

Now, in connection with that, recently; I guess that EPA is trying to update their program planning. Region 1 came to us last week in regard to a memorandum which has come out from EPA's Washington office, looking for a lot of new, up to date data for the computer. We have refused to assist them in collecting this data. We say you have our construction grants project list, which is based on assumed appropriations. They are asking for additional data on project status, and so forth, all based on assumed appropriations.

In that very same document, they say it is going to be the basis for their request to the President in the next budget. This does not help us. We are looking for more money. We are not going to give data that says this is all the money we can use.

We in fact were on the phone yesterday morning with region I and we said, sure, you make up your data to comply with all these tables which have to go on the GICS system, we will tell you whether there is any vastly wrong errors, but it is based on the assumption which we do not think is correct.

We will not say you are getting wrong data, but it is based on assumptions of appropriation level. They use this data for their basis of appropriations that the States cannot use more. They do not look at our list which says we have 51 pages of project listings to spend money for after 1984, and this bothers us, and we have had quite a round with region 1 on it. They have our list. It is based on what they told us to base it on. But it took a long time for us to get a figure from region 1, what to make of our list last January.

Our list is, as you know, based on what they say. It is based on 1978 needs survey cost. That is January 1978 costs, and we are talking about 1980 costs. Not only is the list at EPA, but costs on it are not realistic as of today. With the appropriation, we will start making grants, but we are going to be short before the year is over.

Mr. MINETA. There is a call of the House for a recorded quorum. We will recess for 15 minutes.

[Short recess.]

Mr. MINETA. The subcommittee will please come to order.

Mr. Clinger?

Mr. CLINGER. Thank you, Mr. Chairman.

Thank you, Mr. Collins and Mr. Long, for your statements this morning, helping us get a look at this problem.

I have a few questions. I want to address the first one to both of you. You have indicated that certainly one of the major problems has been the inconsistency of funding from the Congress, that you have not had amounts to rely on in planning and getting these projects moved along.

I am wondering if you could give me an estimate if you had consistent funding. In other words, if you had consistent funding in real dollars, from year to year, and assume an average completion time of the project for 5 years, if we ever got to that point, how long would it take, say the State of Texas, and the State of New Hampshire, to meet the requirements of the act? At what point in time would we come up to the standard for water quality required by the act?

Mr. LONG. At the present time, on the 5 year funding list, and that is where needs have been identified, we have $1.4 billion worth of projects on there. So you are looking at, if you are looking at $5 billion authorization, we say we get approximately $200 million a year, that would be to about 1987, 1988, and probably take 2 or 3 years after that to complete the project.

Mr. CLINGER. Say about 1990?

Mr. LONG. Somewhere along there. The reason we are suggesting, or I was suggesting long-term funding strategy is that if we go ahead and start the step 1 and step 2 projects, and, for example, we start over 100 in 1979, to just carry those projects through, you are looking down at 1984 and 1985 to complete those in the step 3 construction phase.

I hate to see us spend a lot of money in step 1 and step 2 on building facility plants and development plans—if they lay there 4 or 5 years, they are totally out of date, and you have to come back and redo them. If we had consistent funding, and that is important for us, to get enough step 1's and 2's going, to keep that from happening, where you do not have step 3 projects, to use unallocated money, and we have unobligated balance in Texas, and it has been presented to various committees—well, it is not consistent with what the facts are.

For example, we have 69 projects in EPA right now, for about $50 million, that are not reflected as—they are reflected in unobligated balance, but all they have to be approved, and they will no longer be unobligated balance. We are trying to come up with a system to give us some idea of how many projects we can start, and how we can keep these things on schedule through the system, and we are looking at probably 10-year funding programs.

Mr. CLINGER. Your suggestion is to do away with the three step procedure, and go to one grant application?

Mr. LONG. I am suggesting that as a means to improve administrative review time, turnaround time on these projects. When I make that statement, I do not want to be misleading in fact that I am saying that we do not need to do a full facility plan, that we do not need to do survey, or adequate plan certification—I think those are absolutely necessary in the grant program.

All I am saying is administrative review time that goes with those processes, I think, can be cut down.

Mr. CLINGER. Let me ask Mr. Collins what your estimate would be?

Mr. COLLINS. Basically our 1980 list was nine pages. Our 1981 to 1984 list is 13, and we have 51 pages of jobs necessary after that.

Mr. CLINGER. Is that your universe?

Mr. COLLINS. To comply with the requirements of the law, our needs survey showed about $400 million worth of projects at January 1978 prices. Three quarters thereof, the Federal share, would be $300 million. Under the $3.4 billion appropriation, our allocation would be less than $30 million, about $29½. So we are talking 10 years with no inflation.

Mr. CLINGER. Again 1990. That is the best case scenario, where the regulations are frozen, funding is secure, and you do it within a 5-year period of time. Realistically, under the present set of circumstances, we are probably looking at double that?

Mr. COLLINS. We will never finish.

Mr. CLINGER. You have testified, Mr. Long, that you felt that given some of the changes in procedures that you have recommended, that the time of process could be reduced to a minimum of perhaps 5 years on these projects. We have had some testimony yesterday from consulting engineers who indicated that in doing the projects through other Federal programs, for example, Farmers Home, EDA, and a number of projects which were funded under LPW program, that we are talking about initial planning to completion of 2 to 3 years.

The reason for this compressed time frame was the approvals were based primarily on certification by the applicant of compliance with many of the other Federal laws that impact upon the program. I am wondering if you feel this would be feasible for the grants program?

Mr. LONG. I think it would be cutting it pretty tight. I think historically you can even look back at the old 660 program prior to 1972, where many of the requirements that are required right now were not in the system, and I do not think the turnaround time was that good then. I think it would be very difficult, in my opinion, to construct the average project in 2 to 3 years, and meet many of the requirements that we are required to meet. I do not think we should lose sight of the fact that adequate planning, and adequate facility plans, and good plan specification is very, very important to water quality.

I would hate to see us rush into this thing just because we can go out there and build something in 2 to 3 years that offsets some of the other things that are important to water quality also.

Mr. CLINGER. Are you suggesting that the projects that were constructed, or have been constructed with EDA funds, or with Farmers Home funds, are not good projects?

Mr. LONG. Absolutely, I am not saying that at all. I do not know that there are any of those that have been completed in Texas in 2 to 3 years. All I am saying is I think a lot of the requirements that we are required to do under the law as exists today, and especially in planning phases, I think those things are things we do not want to overlook, and rush out and build a project that maybe we could kind of get ahead of ourself on.

I am not suggesting that at all. What I am saying is I think it is going to be very difficult to go out and construct average projects

and meet requirements that they must meet. It is going to be very difficult to do it in 2, 2½ to 3 years.

Mr. CLINGER. Under the delegation agreement, and I would assume that New Hampshire and Texas are problably about as far along as any State in terms of assuming the responsibilities under the act, is that a fair statement?

Mr. LONG. Yes, sir, I think that is true.

Mr. CLINGER. Under the delegation agreements, do you basically do the same kind of review that EPA was doing before? In other words, is your activity just a transfer of the function?

Mr. COLLINS. We do a better review than they were doing before. You do it in less time. We were doing plans before hand, and there was a duplication of effort. We have cut out that duplication of effort. Region 1 knew what we were doing, and their review, I would say, was not to the extent that we did—we let them pick up all the things on their regulations as far as they go.

Mr. CLINGER. They were second guessing you all the way through the process, so there was a duplication?

Mr. COLLINS. Tremendous duplication.

Mr. CLINGER. In some of these other programs, the process of review really involves determining whether the consulting engineer has certified, or the grantee in fact has certified that these requirements are being met. You go beyond that. You do not accept certifications of compliance?

Mr. COLLINS. We certify compliance to EPA, and municipalities and grantees never really certified them to us before. I mean it was a matter of appropriating money, and we checked it, and make sure it was in compliance. We have had standard warrant articles made up for town meetings that we know the bond councils will approve later on.

Mr. CLINGER. Has the fact that you now have full delegation, and have had some experience with it, been the prime reason you have actually been able to reduce the time involved and process applications——

Mr. COLLINS. Not applications, because EPA still has the say on the grant application.

Mr. CLINGER. That has not been delegated?

Mr. COLLINS. They cannot delegate that. We certify it to them, and they must do it.

Mr. CLINGER. EPA still has the final say?

Mr. COLLINS. The grant application and final say on the payments. We certify it to them, but we do not actually approve it.

Mr. CLINGER. Where does that signoff on the grant application occur? Does it occur in Washington, or region 1?

Mr. COLLINS. It occurs at region 1.

Mr. CLINGER. I thought in your testimony somewhere you indicated that there had not been decentralization from Washington to the extent that you would like to see.

Mr. COLLINS. I think a lot of these PRM's, and their interpretations have not been decentralized. I have run into things where they have interpreted differently from one region to another.

Mr. CLINGER. Have you found that your efforts in providing technical assistance at the pre-application stage has reduced the amount of time further down the line? In other words, have you

been able to short circuit some of the problems that might otherwise occur because of the technical assistance and consulting assistance that you give the applicant?

Mr. LONG. As far as the State of Texas is concerned, we spend a lot of time and effort on our pre-application conferences, and I think it has been definitely, well, one thing I might mention that causes this problem, any time there is a change in regulation, or maybe it affects two or three regulations, and it kind of offsets the system, and I mentioned I would like to see the regulations stabilized, and I think after you have an engineer in the pre-application conference on various schedules, and many of our engineers have 15 or 20 projects, we in some instances now have shortchanged the pre-application conference and not called them back in here, and told them various things—just sent them the packet, and fill it out. That has helped get some of these things turned around a little faster.

I feel like if the regulations are stabilized, and the people who fill these out, and in most cases in our State, engineering firms hired by the cities do this, many times we are finding it is not necessary to call them back in there on another project to explain the thing in detail again. I think the pre-application conferences have improved, and improved turn around time on projects.

Mr. CLINGER. Mr. Collins, in your testimony, on page 6, you talk about the 2 percent set-aside for innovative and alternative technology grant increases which will be lost to reallotment in New Hampshire due to the inability of EPA to define the terms in a timely manner.

Is it your suggestion that there be a basic change in the I & A approach? I got that from your testimony. You feel I & A should be treated as a demonstration pilot program?

Mr. COLLINS. Away from being a definite requirement. The town is ready to build. They do not want to be told to go back and start over again. This happened when Public Law 660 went out.

Mr. CLINGER. This should not be a mandatory requirement for every applicant?

Mr. COLLINS. We feel it should not be mandatory requirements.

Mr. CLINGER. Then how would you handle it to encourage I & A?

Mr. COLLINS. I think you do have the benefit to the communities if they want to, of the increase from 75 to 85 percent of their grant. I think if they have the interest, and you tell them this, but not make it a definite requirement that they have to comply with. If we were to comply 100 percent with that, this would utilize 16 percent of our allotment, because that 2 percent is strictly for the increase from 75 to 85. You have to use other money out of allocation to make up the rest of the 75 percent.

When it hits 3 percent next year, you will be using—to use all this set-aside money—25 percent of your total money for these innovative—alternative projects.

Here we are ready to go with these projects.

I am not about to go tell the towns that you have to go back and do something different so you can pick up a little bit more. With our State grant of 20 percent of eligible items, the community is down to 5 percent. If you go to 85, our State grant goes down, but in amount of total project costs, instead of getting 95 percent from

State and Federal, they get 97. So 2 percent is a gain that the municipality makes. If they look at that, they can see any delay that will wipe that out. We do not see how we can use it.

Mr. CLINGER. One final question. You indicated that as a result of delegation, you are now able to process papers faster. In other words, you are able to expedite the whole procedure. But I gather that you are saying that the time really has not been reduced, because subsequent to delegation there have been added responsibilities, where EPA has taken onto itself four areas of additional review.

Mr. LONG. That is basically what I am saying. Let me point out one thing. During a period of time we may not speed the project up from start to finish, as much as we would like to under delegation, because of additional program requirements. We are able to handle a much larger number of projects at one time than we had been able to in the past, because mainly the number of people 2 percent provided adequate staff to run the program.

Mr. CLINGER. As a result of the Cleveland-Wright amendment, what have you been able to do in terms of staffing?

Mr. LONG. First of all, we have 32 standard positions, which were appropriated by our Texas Legislature. Those are standard State positions. I have added 81 grant positions.

Mr. CLINGER. And before delegation?

Mr. LONG. Before delegation I had 32. I have added 81 grant positions to the construction grant project, one to planning, and added one to legal counsel, and I have 18 field inspectors who are assigned to our district and field office—we felt like it would be better out of the district office instead of the Austin office.

Mr. CLINGER. How many people did EPA have before performing the same function?

Mr. LONG. In our region, I do not have any idea. Probably 15 to 20. They had the Corps of Engineers doing inspection for them, and then the State of Texas has had a memorandum of understanding with EPA, where with the 32 people that I referred to in the standard positions did seven functions for EPA over a period of the last 5 or 6 years prior to delegation. But there was one thing that happened. There was a lot of duplication.

Plans and specifications happened to be a good example. I do not think, with those 20 people EPA had, if they had applied emphasis on the plan review, and things like that, 20 people could not have done an adequate job, I do not think, and done all the other things that we are required to do.

I think it allowed them to look at each project less than what they looked at if we had not had those seven functions. It was duplication of effort under the old memorandum of understanding. Under delegation, I hope we can correct some of those problems.

Mr. CLINGER. You still find there is a problem with their looking over your shoulder?

Mr. LONG. I did, until October 1. I am told that that is going to change, and they have reorganized, where I do not believe they will have the forces to look at 273 projects, say, in 1980. That is what we anticipate.

Mr. CLINGER. You have had total delegation since when, Mr. Collins?

Mr. COLLINS. We picked up final phase C in October. We have had total delegation basically a year.

Mr. CLINGER. Have you had any problem?

Mr. COLLINS. As far as personnel, we had to go to our Legislature to get permission to hire people, even if they were funded under this program. The only way we got it through our legislature was that if this money slows down or disappears, these people will be fired. It is not easy to hire competent people with this in mind. It has been a problem. We have been slow about hiring, because we do not know what is going to happen. This is one thing in our year end review where we originally said we were going to hire 44 people, and we hired 30; EPA said how can you do the job with 30? We have people that do other work, doing the 205(g) thing, because we cannot get new personnel and we do not really dare get them.

Mr. CLINGER. I think that is all for now, Mr. Chairman.

Mr. MINETA. Mr. Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman.

Mr. Collins, I would like to go over some of your testimony, and Mr. Long, if this applies, or you have some thing to contribute, please join in.

I am going to go more to a specific instance. On page 6, in item 4, where you speak of factors which we consider to have deterred progress on the program, you say it has taken over 16 months for EPA Region 1 counsel to accept the State attorney general's interpretation of State law with regard to the duties of New Hampshire counties relative to pollution abatement projects.

Then on page 9 you go on to say it is your belief that the program could be expedited if EPA Washington would actually delegate more of the decisionmaking process to other regions, so that the partnership between the regions and States could become really meaningful.

We have had a sewer system condemned for 10 years in my district, and we are no closer to a sewer system solution today than we were 10 years ago. Part of the problem was that Chicago had authority, and Chicago had the project manager, Chicago EPA. The word of what was happening was getting to Chicago, and apparently the papers were stamped there. On what was coming to Washington, the people looked at the stamp and never went farther. We finally brought city officials down here about 3 months ago, and EPA Washington did not want to believe our side of the story regarding what was happening in Chicago, until we finally convinced them. They looked into it, and removed the project manager.

Then EPA got active, and really worked getting some results. All of a sudden we find that the local State pollution control agency gets into the act, and starts to look at the criteria that was developed to determine whether we could have rapid percolation in an area. It was not feasible, so the new system was recommended, lagoons and a sprinkler system. That was rejected based on criteria of rapid percolation. It is something similar.

I do not know how many thousands of dollars have been spent up there, but it is something similar to this article in the Beaumont News, where it says the bureacracy squanders sewer funds. They

spent $610,000 in Federal and local funds, and nothing has been built. It is almost a Catch 22.

I am wondering what experience you have had. My feeling is that the man who makes no mistakes is the man who does nothing. I am wondering if you can get decisionmaking at a lower level in the Federal Government if people are willing to put their neck on the line to make a hard decision and do something, or if they procrastinate and kind of pass the buck or vacillate, I think that is our problem out there. We have had facilitation, the professional bureaucrat who wants a good record so he can advance just does nothing, and they do not chance making any mistakes.

I am wondering, you apparently have had somewhat better success dealing with the region than what we apparently have had up there. I wonder if you have a comment on that.

Mr. COLLINS. This 16-month one, which I referred to, ended up with decision down here.

Mr. STANGELAND. That is what we are going to end up——

Mr. COLLINS. I would say we have good relations with the EPA region. We are after them all the time. We have got them convinced that we know what we are doing. I think this is why our certification is working. We have a staff that is well qualified, and they know what they are doing, and I think this has helped to move it along. There are certain snags that we run up against when it comes to this, and that which go beyond the decisions that they can make in the EPA region.

Mr. STANGELAND. I would like to have Mr. Long comment on this conservation district referred to here, but I would like to interject once more. Your testimony cites that a good deal of your problem is funding. I can sympathize with you, but what we have to do before we start many projects, is to set our priorities, and handle them as the money comes.

Maybe there is another money problem beyond the adequate funds. I know we could use a lot more money to clean up water if we had it available, because a lot more work needs to be done. But I am more concerned, other than the money aspect, with how you function with EPA? That is what I am concerned about.

Mr. COLLINS. We make comments on everything that comes out, drafts we get from them, we comment. Sometimes it does not have much result.

There was a draft PRM that came out, and we received it in June, on value engineering, which is one of the things listed over there on the chart. Their criteria of increasing it for smaller projects was that weighed against total project costs, EPA has achieved net capital savings of 5 percent. But the question—they do not say how long it took them to save that 5 percent. Did they lose it in inflation?

Now, this program requirement memorandum would bring down the dollar value of the projects that had to go this scrutiny. It is things like that that we always reply to, and give them our ideas.

Mr. STANGELAND. Consulting engineers came in and testified to the problems they have. Basically, it is a problem of steps, criteria, and regulations, and a lot of what might be called mish-mash, which causes dollars that we appropriate to be eaten up by inflation.

In Minnesota, and in most any State you have EPA and a local or State pollution control agency, whatever you call it, both charged with the responsibility of cleaning up the waters of this country, and keeping them clean. Yet they are the stumbling block to giving us clean waters in my district.

How do we resolve that? Where do we cut some of the redtape, and move to get something accomplished?

Mr. COLLINS. I think the delegation has helped a lot, even with added requirements. Public participation; we saw it coming, so we put one fellow on our staff that has gone through the whole regulations, and come up where he—well, tells the community here, you have to do this to comply, and yes, it takes 45-day notice for a hearing instead of 30, and things like this.

So we have expedited what we feel might have been delays. This is why we say it has probably taken the same length of time that it did when the law was first passed, than what it does now. We think it is expedited compared to the present regulations.

Mr. STANGELAND. I asked a question yesterday whether States had expertise to take the broad general criteria that the EPA sets up and do the job. The consulting engineers felt that most of them did. EPA should be more or less a review board with a very narrow period of time, in which to review a State decision to see if it complies with the general rules, regulations, criteria. If it does, the State continues to run it. I think that would speed it up, and it would cut out a lot of redtape.

Mr. COLLINS. Your highway ended up with—well, here is a hunk of money to the States, you get the job done, here is the standard, and I think this might speed it up.

Mr. STANGELAND. Did you want to comment on the problems of Trinity Bay?

Mr. LONG. I do not know all the details on Trinity Bay Conservation District. I think we have had two or three projects in Texas that have dragged through 6 or 8 years, and there is still nothing in place as far as construction is concerned.

It is my understanding on Trinity Bay Conservation District project that they submitted the application somewhere back in 1971 or 1972, maybe as early as 1971 or 1972, and were told at that time by EPA agents that they would have to go back and break it down to certain service areas and redo service applications, and come back in with applications. I think I am talking about the right project. I think it was done and they submitted the application sometime in 1973, 1974, and about that time the regulations that went along with the Federal Water Pollution Control Act of 1972 came along and they retroactively told them your application is incomplete, you have to do a bunch of other things, another delay of a year or 2. I believe I am right in this statement that some of the segments of the project for Trinity Bay are under construction, and possibly some of the segments are still not under construction.

It is a fact, though, that the project was delayed because retroactive things have been placed upon it, and things like this, far beyond what it should have been. I cannot defend, from the State or EPA level, when it comes to a project being dragged along that

line, and I also sometimes—you read about these things—in certain cases we do not get quick turnaround time from the applicant.

We have this happen a lot, where we get inquiries, why it has taken so long to review an application. I get quite a few calls from congressional people and others, who call me daily about these things, especially in their particular area, and many times an applicant has failed to respond to the letter where we have to have something forwarded. I think the thing is twofold.

I cannot defend what happened on Trinity Bay conservation area. I am not familiar with that particular project. I think that is basically what happened on that project, though.

Mr. STANGELAND. If you gentlemen have recommendations—as to how we streamline the process, speed up the review process to get some of these projects built under current dollars rather than 5 or 6 years down the line, with 50 percent inflation, that would be very helpful. The consulting engineers made some recommendations as far as rules, regulations, and all the paperwork and time. It is interesting to have these people who really tend to profit by more work, and get the larger charges associated with more work come to us and say they do not want all that work. They want a streamlined process. They would like to get less money, spend less time, and get some of these things moving. If you gentlemen have some thoughts or ideas about how we can make EPA more responsive to the needs of the States, outside of the money problem, and I can appreciate that, since that is kind of our problem, to provide that money, but other than dollars available, it would be helpful to have your ideas.

Mr. COLLINS. I think this 7 years, or 5 years which they talk about, was an interesting comparison, because I had a colonel—I cannot remember his name—in charge of the Corps of Engineers, New England Region, who said it takes 17 years for the Corps of Engineers to get a project, from the beginning to end. The planning is necessary, as Mr. Long said, there is no way around it, it is a requirement, you need good plans to get good bids for contractors to work from, to keep the costs down, and 5 years, 6 years, 7 years, it is not out of line for average-sized project.

Mr. STANGELAND. I would guess a large project, and certainly a project such as you are describing in New Hampshire, is no small undertaking. But the problem I am talking about is a problem like a town of 15,000 or 16,000 people. EPA must have some standard designs that fit certain areas. I realize that all effluent disposal does not work. What works in one place is not going to work someplace else. There are a lot of alternatives. But you ought not take that long a time to decide what is good for that community, and what it needs, in my estimation.

Mr. COLLINS. These regulations are part of the problem. New Hampshire, the Granite State—why do they call it that? There is granite right there underground, water in between, and hard soil on the top. What does not work there might work good in Texas, yet under the regulations for land disposal, you have to go through all these things. You cannot just write it off by saying you cannot do it here.

Mr. STANGELAND. Thank you. No more questions.

Mr. MINETA. Mr. Royer?

63-935 O—80——45

Mr. ROYER. Thank you, Mr. Chairman.

I will try not to duplicate and drag this out any more than necessary.

I would like to associate myself originally with the remarks of Mr. Cleveland pertaining to projects that are ready to go.

It seems to me that if nothing else comes out of this committee hearing, we ought to make sure that those projects that are ready to go, for which local funding is available, they go ahead.

One other quick statement that I would like to make, I do not feel very comfortable allowing any applications for new projects to start with the procedure that we presently have now. I think you gentlemen are to be commended for the lead that you have taken. Evidently you have been delegated sufficient authority so you can move ahead.

One of the things I would like to ask you is how difficult is it to get full delegation authority? Can that be streamlined some way so that more States can get this authority, so that they can be in a position such as you are?

Mr. COLLINS. I think we had it tough being one of the first States doing it. We had batted around. Our delegation agreements consist of this book right here, of about seven pages of agreement, and the rest is strictly checklists for the various functions. It took a lot of banging together to get a simple agreement like this.

Mr. ROYER. Do you feel there is sufficient information to develop a reasonable way of getting delegation within a short period of time?

Mr. COLLINS. I would say so.

Mr. ROYER. The second question I have pertains to the same thing. Are there any areas that you feel should not be delegated, even including the application process? And would it be beneficial?

Mr. COLLINS. I know of no areas——

Mr. ROYER. Mr. Long, do you?

Mr. LONG. The only two that I mentioned in my presentation that could be, as far as I am concerned, was the review of environmental assessment and the policy on minority business enterprise. I would like to see the two delegated to the State, if at all possible. I think that would cut down on some review time and some of the duplications that have to go into it.

For instance, on minority business enterprise policy, when we assumed delegation, we assumed EPA policy with that delegation, and we are sitting and reviewing every project in detail to make sure that it complies with the goal. It goes to EPA, and we go straight to the process. Sometimes they agree with us. Sometimes they think goals have not been met. There is some controversy there. I would like to see these things delegated to the State if at all possible.

Mr. ROYER. I want to associate myself with your remarks, when I say it is not the purpose on my part, I am sure it is not the committee's, to bypass the necessary things that need to be done to get a good project. I think if a project has worthy goals, we have to do everything we can to further the project.

Is it true universally with this program as it seems to be in my district, that we have a zero-growth curve that more or less has made projects obsolete before they are finished.

Is this something that happens throughout? What experience have you had in having to make applications for expansions of projects even before they are completed, such as we have had in our district?

Mr. LONG. We have that problem, and one thing I think we are going to be faced with in the near future is these interceptor projects and what EPA will fund. I think there needs to be a definite policy prepared right now that lays out what type growth will be considered, whether it be controlled, normal controlled growth, or if it is an area like where we have two or three towns in Texas, for example, and whether they should be funded or not. I think there are some policy, interceptor policy and growth are needed. I see in our region that there may be some differences just among the policies that are laid out now compared to what they were 2 years ago, for example, on growth.

Mr. ROYER. One last question, Mr. Collins.

You did mention funding may be consistent with some of the highway projects. Were you thinking of the trust fund type arrangement?

Mr. COLLINS. Yes, or block grant to the State.

Mr. ROYER. I think, Mr. Chairman, that is one thing that probably ought to be put forth fairly clearly in the report. We should look at the possibility of setting up some kind of trust fund or block grant type appropriations.

Thank you, Mr. Chairman. I yield back the balance of my time.

Mr. MINETA. Let me refer to a letter, dated the 26th of July, 1979, sent from EPA to Senator Muskie.

> In order to deal with the problem administratively, I will instruct the program that no new requirements are to be applied to a project with Step 3 grant assistance where construction is underway or likely to be underway within 6 months of the grant award. This approach would give communities an assurance that they can complete arrangements to finance the local share of their project for new expenditures through building, local contracting and construction without fear of costly delays from new requirements.

I am just wondering whether or not you would consider this adequate or is there a better approach that might be taken?

Mr. COLLINS. This said 6 months from grant award?

Mr. MINETA. Construction is underway or likely to be underway within 6 months of grant award.

Mr. COLLINS. Once they get step 3 grant award, they usually are taking bids and under construction well within that 6-month period.

It is before that. It is getting your grant application approved after you might have finished step 2, 2 years ago. Now, you have to build and you get hit with a change.

Mr. MINETA. Is there a better policy that might be considered?

Mr. COLLINS. I think you almost have to tie changes into not only the step 3 grants with construction as he is talking about, but step 2. In other words, once a grant has been made for step 2, you follow the regulations as they are that day, and once the grant is made for step 1, you will follow the regulations as they are made on that day and not come back when you get to step 3 and go back and do step 1 and step 2 over again.

I think it has to be not only construction, but it has to be the other steps as well, to make it consistent.

This hurts the towns. If you go back and ask them for more money, they have to go to a town meeting, it is not the easiest thing. They are all being told they have to do this. Every town is being told they have to do this whether they want to or not. They have to come up with their share of the money.

Mr. MINETA. Because of that town meeting situation in New Hampshire, have you considered some kind of bonds or something that you could come up with, different approaches for financing, the project, for example, tax anticipation notes, so that the project might be able to go ahead without having to wait for the next year's town meeting?

Mr. COLLINS. There is a procedure for special town meetings which they can go to the superior court, but they have to have good reason, and the judge does not always grant them just because the Federal Government says they have to do it.

Mr. MINETA. Probably in New Hampshire that is one reason why they would not do it.

Mr. COLLINS. We have gone to a special town meeting, and it is a matter of advertising and hearings, for added funds at a certain point in certain cases where delay would have been very costly.

Mr. MINETA. Without objection, this EPA letter will be entered into the record.

[The following was received for the record:]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 26 1979

HAND DELIVERED

Honorable Edmund S. Muskie
Subcommittee on Environmental Pollution
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The Senate Appropriations Committee, in the HUD-Independent Agencies Appropriations Bill for FY 1980 (H.R. 4394), included a provision which would prohibit use of EPA's funds for enforcement of any regulation which would retroactively apply project requirements or conditions not in effect at the time the grant assistance for a project is awarded. This prohibition could create severe confusion and disruption in the grants program and we believe that there is an administrative solution to the problem which would avoid a legislative change.

The purpose of the prohibition, as I understand it, is to avoid imposing new requirements which would delay projects that are quite far along in the process. The Agency agrees that delays of this kind must be avoided if the pollution control goals of the Clean Water Act are to be achieved. We have tried to conform with a similar policy for some time in the grants program. Our experience, however, is that on occasion a serious problem arises which requires immediate attention in all projects in the planning stage. We currently have over 6700 projects in planning and design. A restriction of our ability to change the course of this planning could affect adversely several billion dollars of new construction.

It is also possible that our policy on advanced treatment could be affected by the amendment. We required, in program guidance issued in 1978 and 1979, an intensive review of all grants projects involving treatment more stringent than secondary to ensure that the treatment level would result in substantial water quality improvement. This review resulted from growing concerns within EPA and restrictions placed on the Agency's FY 79 funds by the Appropriation Committees. We feel it has already resulted in considerable savings to the communities.

In order to deal with the problem administratively, I will instruct the program that no new requirements are to be applied to a project with Step 3 grant assistance where construction is underway or likely to be underway within six months of the grant award. This approach would give communities an assurance that they can complete arrangements to finance the local share of their projects and move expeditiously through building, local contracting and construction without fear of costly delays from new requirements.

Sincerely yours,

/S/

Douglas M. Costle
Administrator

cc: Senator Proxmire
Senator Mathias

Mr. MINETA. Are there any further questions of either Mr. Collins or Mr. Long?

If not, I want to thank both of you for your very, very fine testimony and for the work you are doing. You are really in the forefront of what was intended under the 1977 Cleveland-Wright Amendment, and now that there are about 30 States with some level of delegation, EPA should be trying to get the other States onboard. Some of these other States will probably be reluctant because of the issues that have been discussed: inconsistency of funding, numerous regulations, and the EPA continuing to look over your shoulder, despite delegation.

You have given us a tremendous amount of insight and several issues for us to discuss with Mr. Costle tomorrow.

Thank you very much for adding to the deliberations of this committee. We tend to pass eight-page laws around here that get translated into 20 feet of rules and regulations. We hope we might be able to at least hit that 25-percent mark that I spoke of earlier. I do want to thank both of you very, very much.

I would like to call as our next witness the district director, of the Sanitary District of Rockford, Rockford, Ill., Mr. Jon Olson.

Mr. Olson, do you solemnly swear the testimony you will give before the committee will be the truth, the whole truth and nothing but the truth, so help you, God?

Mr. OLSON. I do.

Mr. MINETA. Mr. Olson, if you would proceed.

## TESTIMONY OF JON L. OLSON, DISTRICT DIRECTOR, SANITARY DISTRICT OF ROCKFORD, ROCKFORD, ILL.

Mr. OLSON. About 10 days ago, one of the staff members of your committee called me and asked me if I would come to Washington to give testimony. I was quite surprised at the call, and I still do not understand why I was chosen. But I will try to impart to you a little bit about our experience at our sanitary district, and give you our interpretations on how your laws impacted on our district, and maybe some of my peers who run larger districts, and I may also make a few comments on behalf of smaller districts.

As I understand, I may be the only director of a sewage treatment authority involved in this series of hearings and that probably I am going to be speaking for too many people who will not see my view as a majority view. I think in some cases you may respect what I have to say as minority view, particularly our experience at our district.

Our sanitary district at the turn of the 1970's was faced with moratoriums on expansion within our community because our sewage systems, both in terms of collection and treatment, were overloaded. We also knew that there was an environmental ethic of the 1960's that was going to bring about major changes in legislation in the 1970's. As a result, our trustees of our sanitary district made a concerted and determined effort to change the modus operandi of our sanitary district and to change the district in order to respond to what we anticipated to be a new law, new funding source, and to meet our current needs at that time.

Historically, sanitary sewage facilities have ambled along through history in the last 50 years without a great deal of techno-

logical improvement. We are still dealing, even today, with technology that is not significantly improved over 30 years ago. We are hopefully, as a result of this 1972 act, Public Law 92-500, and a little bit as a result of Public Law 84-660, on the threshold of some major breakthroughs in advanced types of waste treatment. We are not there yet, at least in our opinion.

Our experience at the district, I think should be couched just a little bit in an understanding of our district. We serve an urban area population of about 226,000 people. Fifty-six percent of our flow is from industrial concerns and 26 percent of its total flow is plating waste. Though our district is medium in size, I think we have concentrations and constituent effluent that is very similar to your very large sanitary sewage facilities in the country. We are very dissimilar to small treatment facilities in the country. We made this major commitment to come to compliance with Public Law 92-500, and we are committed to staff up and meet the demands of that law.

We needed the money plain and simple. We would do anything to get the money. We did that. The impact on our district, we have doubled our staff, from a staff of about 68 people to a staff of roughly 130 at the present time. The majority of that was involved in developing a user charge system and meeting various requirements therein. We have our own computer and we have a delinquency billing section. We have expanded our chemistry section for analyses that had to be undertaken for this law, et cetera. It ripples right through the system.

Actually, the manpower necessary to meet the day-to-day treatment requirement of the sanitary district was reduced by five people over the same time frame. The actual day-to-day operation of the sanitary district has not changed. That which has changed, of course, has everything to do with the act. But we at the sanitary district have not had a problem in a major way with the act. We, of course, have minor horror stories of trying to get through bureaucratic redtape. I think everybody has had. We have undertaken a $62.5 million program. Today we are 80 percent of the way through the system. We are under construction with all but four projects. Those four projects are awaiting step 3 funding right now, and we have every assurance they will be funded in the very near future.

We have no major complaints with the program. We believe the program needs to be fine tuned. We believe that the program needs to be looked at hard by Congress and by the EPA if the program is going to be continued beyond 1985. I think that is something that Congress and EPA has to take into consideration.

Will there be continued funding to this program? If there is, it is time to fine tune the system. Just giving States responsibilities is not the total answer in our opinion. We do believe that we could see a great deal more efficiency if there be more delegation of responsibility to local sewage treatment authorities. Just being able to simply certify that certain pieces of work under the act and under the intent of Congress and administrative regulations written by the EPA meet the requirements of the act would save valuable time. They could to be certified to by our sanitary district, the needed checks and balances, of course, would be in the auditing

system, and penalties could be derived to overcome that problem of improper performance.

However, I think I am getting too far into some of my recommendations before I have completed one of my major points that I wish to bring before you today.

Sewage treatment facilities expansion improvements are not a highly visible kind of thing. You are not going to see a lot of big buildings and roads and major areas remodeled within your community. The pipe is laid underground, most of the sewage treatment facilities lie inside of ground less than 100 acres in size, they lie out of the way, and are in the lowest point in the city. They are definitely not a very visible thing to fund.

As I stated in one of my earlier drafts of the remarks you have, it is not something easy to get you reelected on as a Congressman. However, there is one thing about sewage treatment facilities that differs from other grant programs, and I think the time frame you see on your charts over here is reflective of that. It takes 10 to 15 years to undertake a major expansion of a treatment plant. We have undertaken complete expansion of our system, both in terms of collectors and in terms of treatment facilities. We had our facilities plan completed in 1972. We have been in the engineering and construction phase ever since. We expect to wind up our program sometime in late 1981. Any statement to be made by my peers that this is too long a time, I think is unreasonable. I think we have moved as expeditiously as possible. We know there are going to be funding hangups and there are going to be funding delays. These, of course, frustrate us at various turns in our day-to-day operations, but we have learned to deal with them.

I think one of my comments I made earlier is something that has to be understood by sewage treatment authorities throughout the country. There has to be a complete commitment to a program expansion both by the facility or the authority and the community. I do not believe that communities that have not had complete commitments are ever going to be successful in the business of expanding their sewage treatment facilities and meeting environmental necessities that we are faced with as a country without this. Some of the factors that have affected ability to comply with the law, I think, will be as follows.

As mentioned in earlier testimony, there are changing series of regulations. We have seen these since we began our program in the early 1970's. Yes, they have impacted upon our cost. They have delayed our programs some. But since my background is not purely engineering, and I have been a director of another type of government, that of an areawide planning agency, and I have dealt with other branches of the Federal Government, I expected everything that has happened. I planned for it. I built it into my system, and I hired in order to be able to handle it, and we dealt with it as each problem came up.

The funding delays do cause costs to go up. Inflation is the one you hear the most about. The other one you also hear about is hardware design increases. But that has not been a problem to us in terms of additional dollars. The additional costs this brings to you, as Congress, should be a concern to you. To me additional dollars has not been a local concern. We passed a bond referendum

in the early 1970's and have periodically sold off portions of that over time. We have taken those moneys, plus any float moneys available in our day-to-day operation and have invested those moneys and made enough money off investments to cover inflation.

I have not been too concerned about increased costs on a local basis. I think any prudent management, with available funds by any sewage treatment authority, would probably yield the same results we have had.

I am concerned about one part of another law that affects this whole question of bonding and financing of Federal projects. That is arbitrage. We have 3 years from the time we sell the bonds to the time we must complete the construction in order to comply with arbitrage laws. Due to the change in regulations, we have seen this, we have seen excursions beyond 3 years, and if there was ever to be enforcement under arbitrage, I think this Nation would collapse because there are tremendous amounts of facilities throughout the country that had to sell bonds and have waited for processing and eventual funding much longer than they would have originally anticipated. That is something I think this committee should be concerned with in terms of funding the program.

Many times Congress has passed an eight-page law, which turned into 20-foot stack of regulations, and these regulations have not been properly tested nor carried out through their implementation. So we, as a local sewage treatment authority, are stuck with trying to construct facilities, to buy hardware, to meet current regulations that, in our opinion, are absurd in many cases. The standards are too strict. They are beyond environmental necessity.

I think part of the reason for this is that we are, as a government and as a country, looking toward pretreatment as our salvation. We are establishing very strong pretreatment standards. When the real question is not pretreatment the real concern of the Federal Government, in my opinion, is not what is discharged from local manufacturing plants, or local households which have very significant background concentrations, to local POTW's. What we are concerned with as a nation is our impact on receiving waters, whether they be lakes, streams, or rivers, and as a result, I think we have got horse and cart backwards. We should be dealing with discharge standards from the sanitary discharge, and that would, of course, be involved in the old question of stream standards as opposed to the pretreatment approach.

The establishment of deadlines is another major area that we have had problems with. These have come both from EPA and from Congress. It is not that the deadlines are necessarily unrealistic from the time they are set, if they can be carried out immediately. The problem is they are not carried out immediately. They go to EPA, who has to begin to do research. If there is technology involved, such as a chemistry standard or something which has to be set, they often have to contract out work, and the research work comes back 2 years later, and then it takes another 18 months to 2 years, to come up with a standard to be promulgated through the Federal Register, and then we, as the sewage treatment authority, have a year and a half to get it all implemented.

I am not being facetious in this case because this is a reality. Much of the time that you give us to come into compliance with

your law is eaten up in administrative time to set the standard and promulgate those standards to which we must meet. Little consideration is given during this period for the amount of time it takes us to follow up to meet the new law once the final regulations have been promulgated,

There is another consideration that ripples through this entire thing, and I will bring it to pretreatment program because that, of course, is current. The state of the art technology does not provide inexpensive means in which to analyze organic compounds, and, of course, there is the ultimate responsibility of going to a court of law if we cannot bring about meeting pretreatment standards without going to court. There are just so many gc/mass-specs manufacturers in this country and they can only produce so many per year. It is a piece of equipment that has a long life. You can amortize it out over a 20-year period. They are not highly vulnerable to breaking down and needing repair.

As a result, we are put in a position requesting private industry to tool up to meet a very short demand, probably 3 to 5 years, for a lot of pieces of equipment for which they will have to invest significant capital moneys to come up with hardware to build these pieces of equipment. The leadtime for private industry to meet our hardware demands needs to be also considered in terms of setting timeframes.

What are some of my recommendations as the director of the sanitary district which you might consider in fine tuning the law? I do not think you should be in a position of changing it. I think it is a question of fine tuning.

I do believe that Congress must come to grips with the understanding that it takes 10 to 15 years for sewage treatment systems to be constructed. They must understand that a 7- to 10-year program is normal and that funding will take place over a long period of time; that infusion of moneys too fast and too early will just cause a backlog of those moneys to be sitting and waiting for funding at a future date. I think that is one of the concerns that I have heard about and have seen in various periodicals this year. That is why we got something less than $5 billion down to $3.4 billion this fiscal year. There will be this backlog. If money is only going to be funded for a short period of time in the future you are going to be faced with a tremendous demand at the end.

I do believe it is necessary for EPA and Congress to address duplicating laws. We have seen this in the Resource Conservation Recovery Act, with relationship to Public Law 92-500, particularly in sludge application.

I believe we need to streamline public participation elements. Today, our guidelines for public participation are written, in my opinion, primarily to satisfy all the competing pressure groups for their right of expression; the right of expression is necessary in this country, but I would also believe that a single right of expression through the proper vehicle is the best means by which to approach this.

There is some need for discretionary authority in the granting agency for funds in terms of the regulations we must meet. Not all sewage treatment plants are affected the same way by an act or a law.

The way the regulations are written today and administrative guidelines promulgated, we are all forced to compete under the same exact environment in which the same type of enforcement does not apply to all sanitary districts. Fine tuning would allow recognition of some of these problems and allow us to be able to get to the point where a small amount of discretionary authority would help expedite the granting process, whether it be at the State or the Federal level.

In that the Federal Government is now certifying States to make grants, I think it would be very appropriate in this certifying that a review be made so that local communities could certify that certain aspects of the program are completed and meet the intent of the law. Cost-effective design, compliance with minority hiring and accounting procedures, are examples of this kind of certifying that can take place and can be used and checked during auditing.

I also believe that step 2 and step 3 grant process should be combined. I believe it is unnecessary to have both step 2 and step 3 grant processes. We know from step 1 process in the development of a facility plan, the basic cost we are going to face. If it is a question of Congress not knowing the cost they are going to have to meet in terms of funding allocations, I think you can already see that from the step 1 process, at least in enough detail to give you funding guidelines. I think we can also eliminate a number of submissions if we combine the step 2 and step 3 process.

A review of statutory deadlines must be undertaken and realistic deadlines established. Specifically, we must give some sort of timeframe in the act or in development of the act to allow EPA to research and develop the regulations. Do not make the implementation period the same time as the research period.

Appropriate time to publicly review regulations with POTW's and private industry is necessary. We have seen shortcutting of this by EPA in their efforts to get regulations out. This shortcutting has resulted in a great deal of controversy within POTW's of the country, as well as with private industry. As a result of shortcutting by the regional EPA, our sanitary district, was taken into court, and subsequently lost about $400,000 because of administrative boggling by middle management of the EPA.

There needs to be an understanding for the leadtime of any design, construction and equipment acquisitions. The leadtime here will depend a great deal on the complexity of any given sewage treatment system, but concerns regulations by EPA and the regulations by Congress; the 2-year leadtime for that kind of shakedown is not unexpected. Also, we have to be concerned about the shakedowns of new programs and operational equipment in an operational mode.

One of the major problems that I see in the future is something that is only now being addressed, but it is inherent in terms of everything we do in the future. There needs to be a national policy for sludge disposal. We need to have direction from the Federal Government, both through Congress and from the EPA that aids us in the siting of sludge disposal sites, whether they be land application, land disposal or ocean disposal. It is no longer a local problem—now it is a national problem. We have too much sludge in this country and it is getting increasingly hard for us to even put

noncontaminated sludge into landfills because of local objections. We must approach this on a national basis and we must have a hand-in-hand approach by the State, the Federal and local governments to solve this problem.

The simple issue of just giving money to a sanitary district to find a landfill site or land application site is not the answer. Many times we run across legal objections and most sewage treatment authorities do not have the ability to condemn land and to operate it as a landfill.

There also has to be a major review of what is the ultimate goal of Public Law 92-500 and what are the steps toward that ultimate goal.

Is the ultimate goal to provide secondary treatment capacity across the country or is the ultimate goal to provide advance waste treatment and some exotic forms of removing the last 5 percent of contaminated sludge. I would have to say in my humble opinion there is not enough money in Congress that can be allowed to go into this program that will meet today's needs for secondary treatment across the country. As a result, I would recommend to Congress and USEPA that they review some of these advance regulations that they have been working on. In some of the exotic treatment products that we see on the horizon—push them off into the 1980's and late 1990's and let us get on with the problem of dealing with secondary treatment Let us get this problem solved before we go on.

We have tremendous hardware expenditures in equipment necessary to meet current goals.

One issue I did not address in my statement, and it seems from earlier testimony to be some major problem. That is funding of grants to small communities.

I would say any community of over 50,000 population, if they put together a major effort, can come into compliance with Public Law 92-500 and meet regulations therein and eventually get funding if funds are going to be available. I think that is all possible. Technicians are available on a local basis and expertise is there. Some places under 50,000 population, and certainly by the time you get down to 10,000 population, the small communities can no longer afford to hire expertise such as myself and my staff. As a result, they are caught in the quandary that was discussed earlier. I would say there are some remedies to this problem. It does not deal primarily with consulting engineers. I believe that you have available expertise in your larger sewage treatment authorities in this country that can be loaned out as grant condition by major sewage treatment facilitieds to smaller communities

I have served, on behalf of my district, a number of small communities in our area to discuss their sewage treatment problems, and I am constantly on loan by my district to other small communities, upon request. I think this philosophy could be expanded to involve construction grants programs. It may provide an avenue to relieve some pressure on small communities.

I am not speaking of dictatorial powers. I am speaking of advisory and help situations.

In conclusion, concerning my comments, I do believe the present construction grants program is workable. I have found it something

that I can work with. I am not saying there are not problems within it. I do feel it needs to be fine tuned.

I also do not feel that the Federal Government, either through USEPA or Congress can condone actions of local sewage treatment facilities or local elected officials who tend to ignore the rules and regulations, hoping they would go away and have allowed their problem to compound over time. I believe those governments and those officials should be forced into the situation of compliance.

I do believe it is necessary for Congress to realize the length of time this program is going to take to comply with, and I am speaking of approximately 1970 to the year 2000. I do not believe we are looking at any shorter time frame as far as environmental pollution control from sanitary sewage facilities.

I do believe Congress is also going to have to understand how programs are going to backlog due to design changes and due to the magnitude of the designs themselves. I would not be too concerned about the backlog in moneys as long as those moneys are earmarked through the use of facility planning reports to projects that should be under construction within a 5-year period.

The Sanitary District of Rockford is also a member of the Association of Metropolitan Sewage Agencies, which I believe the committee is familiar with. With the chairman's permission, I would like to submit a statement for the record, and I will not present it, but I will submit the statement for the record.

That concludes my comments. I have submitted to you a written version of my statement for your convenience. I am ready to answer any questions you may have.

Mr. MINETA. Your written comments will without objection be included at this point.

Sanitary District of Rockford

3333 Kishwaukee Street · P. O. Box 918 · Rockford, IL 61105 · 397-9700

TRUSTEES
Robert B. Stringer, President
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George Jackson, Trustee

OFFICIALS
Jon L. Olson, District Director
Kenneth D. Miller, P.E., Director of Engineering
H. Emmett Folgate, Attorney

October 29, 1979

Mr. Norman Y. Mineta
Chairman
Subcommittee on Oversight & Review
House of Representatives
BE 376 - Rayburn Office Building
Washington, D. C. 20515

SUBJECT: STATEMENT ON CONSTRUCTION GRANTS PROGRAM UNDER SECTION 201 OF PUBLIC LAW 92-500 AS AMENDED

Dear Chairman Mineta:

The following comments are the concerns and considerations of the Sanitary District of Rockford and some of my own personal concerns in reference to Public Law 92-500 and Section 201 of the Construction Grants Program.

The Sanitary District of Rockford is a mid-sized Sanitary District serving an urban area populated by approximately 226,000 people. The Rockford area is made up of medium manufacturing facilities with heavy emphasis on value added products. The majority of the Sanitary District's wastewater flow is received from industry and 26% of its total flow is plating waste that has as its contaminants cadmium, cyanide, zinc, copper, lead, etc. The size of our Sanitary District does not equal the major metropolitan areas of the country, however the complexity of our District is equal to major urban treatment plants of our country.

In 1971, the Sanitary District reviewed its overall position in terms of treatment and transport capacity. It was apparent that a major expansion program was necessary. Having reviewed environmental ethics of the 1960's and the movements within Congress, it was apparent that major pollution control legislation with construction grants money would be forthcoming from Congress. As you are aware this law was developed and enacted as Public Law 92-500. Thus, the timing of the law and recognition of our needs was concurrent. The Sanitary District Board of Trustees then made major political and administrative decisions to change the modus operandi of the Sanitary District. These decisions were aimed at doing all that was necessary to obtain federal grant monies by becoming heavily involved in the Federal Grant Process.

As a result our experience in the construction grants program is dissimilar to other POTW's throughout the country. The Sanitary District of Rockford did not view Public Law 92-500 as the major accomplishment in the development of bureaucracy. The District viewed Public Law 92-500 in that it provided current funding mechanisms to obtain federal construction grants. The requirement that the user charge system be established provided the appropriate emphasis to develop a firm financing basis. The ad valorem tax base as a method for day-to-day financing of sewage treatment operations with reference to the Rockford area was archaic.

It can be readily seen by the preceding statements that the Sanitary District was prepared to do all that was necessary to comply with the requirements under Public Law 92-500 and the administrative guidelines and bureaucracy developed to implement it. As a result if there is a "t" to cross and an "i" to dot, the District did everything that was possible and within our control to obtain federal funds. Our development program, as forecasted in 1972, would require approximately $62,500,000 total program funds, 75% of which was eligible for federal assistance with ten years to complete.

Today eight years later, the program is 80% complete. We have received construction grant monies and we are earmarked to receive the remaining construction grant monies required to complete the original program. I am sure one of the concerns of this subcommittee involves the question, "Is the process working?" As a result of our experience I may say that the process does work. I do not feel that the process works expeditiously and smoothly. It may be characterized in the example of traveling from New York to Los Angeles in four days or flying in 5½ hours. The program as established does reach an end, but perhaps is not the most direct route.

If I might digress at this point, I believe the subcommittee should clearly understand the nature of a construction program at a sewage treatment facility. Unlike other public works programs, sewage treatment facilities are not highly visible. As opposed to the immediate effects of public safety buildings, public roads, and the model cities program, the majority of American citizens never really observe or appreciate the impact of the dollars spent.

Sanitary sewerage facilities development, design and construction take approximately 10-15 years. Of the 10-15 years it may be assumed that about two years are spent in the federal grant process awaiting funding announcement after the programs have been submitted.

Given the understanding for major program development and completion, it can be readily understood why Congress has difficulty with funding this program year after year and wondering when the program will ever end. Most of the problems I have experienced in the construction grants program have involved a misunderstanding of the time concept. Congress does not clearly understand how long it takes to complete a program. As a result it loses interest in the continued funding at the time when it is most critical that the funding be continued.

A prime area of concern to your subcommittee is a clearer understanding of those factors that have affected our ability to comply with the laws, goals, requirements and deadlines. Some of these areas are:

1. A constantly changing set of regulations, imposed before past regulations have achieved compliance. This is especially serious in the grants program. When a program is under development and in preparation for submission, new regulations come out that must be met and the design must undergo significant modifications.

   Delays that occur as a result of regulation changes cost additional money in two ways:

   a) The delays usually amount to one to two years in total for a project, thus inflation pushes the cost up.

   b) Additional regulations generally result in hardware design changes that by their nature increase costs. Despite the District's early commitment to the program amendments, i.e. 1977 Clean Water Act, have caused significant cost increases and time delays.

2. The establishment of rules and regulations that have not been appropriately thought out or tested prior to their implementation. Regulations have been established whose solutions are not available in the state of the art technology.

3. The establishment of rules and regulations do not present the most expeditious means with which to carry them out. The current Federal system has within it a series of administrative and bureaucratic delays. More direct lines of communications between Congress, local POTW's and industry need to be developed.

4. Most deadlines that have been established by the Federal EPA and for Congress have set times that have not realistically considered the time necessary to do background research, to determine the economic impact of the regulation and to allow input and review by other governments and private industry. The pretreatment program has fixed time frames for compliance, yet standards for discharge are not set. When these standards are set they will use much of the compliance time and, as evidenced by the few standards already set, will be established with little POTW or industry input and research. Little or no consideration is given to the tooling up program by those affected. Once standards are set it takes a great deal of time to design both POTW and industrial modifications. Very little consideration has been given to coordination of duplicating and conflicting rules and regulations. In some cases, parallel programs within the same agency conflict in time lines and jurisdictional authority of the established rules and regulations.

As a Director of a POTW, I do have some recommendations on how you might streamline your program. Obviously, within the given amount of time both in the statement and my verbal presentation, detailed explanations are not possible. I do stand available to explain my comments in greater detail.

1. Congress must come to grips with the nature of the construction grants program of a sewage treatment authority and understand the 10-15 year development and construction time necessary to complete a program. Continued funding of those programs is the only solution available to meet the overall goals of Public Law 92-500 and the environmental ethics of the 1960's. The continued availability of funds is the only hope small communities have of constructing necessary treatment facilities.

2. The U.S. EPA and Congress must address the laws that duplicate regulations and provide conflicting regulations. Only one law is necessary to cover a subject. This is nowhere more apparent than in the sludge regulations under the Resource, Conservation and Recovery Act, when compared to the appropriate sections of Public Law 92-500.

3. A streamlining of the public participation elements of the construction grants program must be undertaken to give clearer guidelines that attain a rational end. Today's guidelines were written in a hodgepodge manner in an effort to satisfy all the competing pressure groups for their right of expression. A single right of expression procedure should be established and adhered to.

4. There is a need for some discretionary authority at the reviewing level in implementing of the various rules and regulations on construction projects. Some rules and regulations do not make sense when applied to a given program.

5. The Federal EPA is attempting to certify states to grant them the authority to undertake construction grant reviews, thus eliminating the need of construction grant reviews at the federal level. I believe it is possible to even streamline the system further to allow for POTW certification as to certain aspects of the grants program, for example, cost-effective design, compliance with minority hiring and accounting procedures, so that neither the states nor the federal government need be concerned with these aspects. In the certifying by a local treatment authority, that authority would then assure compliance with the regulations. The check on this would occur in auditing of the program. Penalties for non-compliance and inappropriate certification could be established.

6. Once a program has reached a step 2 grant award, changes in rules and regulations should not affect that project in the completion of the step 2 program or the step 3 grant process. This would eliminate much of the redesign time that has occurred involving sewage treatment plant authorities. This problem could also be overcome by the development of a comprehensive program rather than a piece-meal program and regulation development.

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7. A review of statutory deadlines must be undertaken and realistic deadlines established that consider:

   a. The time needed by the U.S. EPA to research and develop regulations.

   b. Appropriate time to publicly review regulations with POTWs and private industry.

   c. Needed lead time for any design, construction and equipment acquisitions.

   d. Shakedown time of these new programs and equipment in an operational mode.

8. A national program for sludge disposal should be developed. This program should not be solely attuned to the establishment of regulations. A cooperative effort between Federal, state and local governments for siting of the facilities is necessary for the disposal of sludge.

   As an Administrator, I view sludge disposal and the siting of that disposal as the Number One priority for the decade of the 1980's. Siting of sludge disposal sites should be a national priority not a local problem.

9. A realistic assessment of dollars available versus regulations needs to be undertaken. I do not feel that this country can afford the sophisticated technology necessary to reach some of the idealistic goals now in the regulatory process and still meet the primary goals of providing secondary treatment throughout the country. In order to realistically meet the secondary treatment requirements, many of the advanced regulations currently under development will have to be scheduled for a time later in the 1980's.

In conclusion, as a Director of a POTW, I feel that the construction grant process has been workable. I do also believe that the process needs to be finely tuned. The grants process is not fully responsible for the lack of action in certain communities across our country. Many local governments and officials have elected to ignore the problems they face. The U.S. EPA and Congress should not condone this action by local governments and elected officials and should move for the enforcement of regulations in those areas where governments are not cooperating in the national goal of environmental control. Congress must also realize the length of time necessary to complete sewage treatment construction programs. Congress must expect that there are going to be delays in funding due to time necessary for design. There will be temporary surplus from one fiscal year to another as a result of regulatory and design delays.

JON OLSON, District Director - Sanitary District of Rockford

Mr. Olson received his Bachelor of Science degree from Northern Illinois University with a double major in Economics and Urban Theory, and he received his Master of Science degree from the University of North Dakota specializing in Public Administration and Urban Planning.

After completing his graduate studies, Mr. Olson assumed the position of Assistant Professor at the University of Wisconsin where he taught for two years. Subsequently, he became Director of the Rock Valley Metropolitan Council, a regional planning agency in Northern Illinois and Southern Wisconsin. For the past six years Mr. Olson has served as the District Director of the Sanitary District of Rockford, Illinois.

Mr. Olson's published works include articles on theories of urban expansion and modifications to Weberian spatial analysis. As an active and enthusiastic sportsman, Mr. Olson has been involved in both professional sport car racing and ski instruction.

Congress must maintain the rays of funding for both major metropolitan areas and small villages for the construction of sewage treatment facilities in order to clean up the waters in this nation.

Sincerely,

SANITARY DISTRICT OF ROCKFORD

Jon L. Olson
District Director

Mr. MINETA. Thank you very much. The fact that you are at the other end of the pipeline, trying to make these things work at the local level is the reason why we asked you to come here and present your perspective.

Mr. Olson, the sanitary district is about what size? What is its capacity?

Mr. OLSON. We have effluent right now of 45 million gallons a day. We have design capacity of 60.

Mr. MINETA. You say that it will take about 10 years to complete your current program?

Mr. OLSON. Well, from the time it is started.

Mr. MINETA. By the time you complete it, will you be bumping up against your 60 million gallons a day?

Mr. OLSON. No.

As a result of some of the requirements under the law, particularly the conservation of water, to get cooling waters out of our system, and the infiltration inflow studies that have allowed us to reduce some of the major effluents to our system, we actually saw a significant dropping for about a 5-year period of the amount of waste we received at the district without a reduction in billable flow.

In 1971, we were about 46 million gallons of effluent and in 1977 we were about 38 million gallons of effluent. Now we are creeping back up toward 45 million gallons due to expansion of industry in our community as well as population base. So there are some ripple effects that are hidden within the act that people generally do not address. But we saw 7 million gallons reduction, from 45 million gallons, because of some of the requirements. I think that of course is the intention of the act.

Mr. MINETA. You note that constantly changing regulations and rules have not been appropriately thought out or tested prior to their implementation and this has had a serious impact on your efforts to manage your program.

I was wondering if you could expand on this and maybe cite possibly some examples.

Mr. OLSON. Of course, you have a thousand examples before you come here, and when you come up here, you might forget them, but most of the problems that we face, because of changing regulations, result in delay where regulations will come out and it is now in force and actually our grant request—our grant priority was all in well before the new regulation, the new regulation gets enforced upon us, and they come up with examples. You are really getting down to the details of administration on a day-to-day basis. I would have to give you documentation on that. If you wish, I could submit it for the record.

Mr. MINETA. That would be helpful.

[The following was received for the record:]

Sanitary District of Rockford
3333 Kishwaukee Street · P. O. Box 918 · Rockford, IL 61105 · 397-9700

TRUSTEES
Robert B. Stringer, President
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Arthur W. Anderson, Trustee
George Jackson, Trustee

OFFICIALS
Jon L. Olson, District Director
Kenneth D. Miller, P.E., Director of Engineering
H. Emmett Folgate, Attorney

November 9, 1979

Mr. Norman Y. Mineta
Chairman
Subcommittee on Oversight & Review
House of Representatives
RE 376 - Rayburn Office Building
Washington, DC

Dear Chairman Mineta:

Pursuant to your request, I have documented the following problems that resulted from an interpretation of the Act and resulting regulations by middle management EPA officials. This is not intended to be an entire list of our experiences, but rather representative of the type of things we have faced.

1. Project No. TP1-Q 171436-03, which was in Step 2, incurred a one-year delay due to the U.S. EPA Region V legal staff insisting that specifications be changed so that all references to the C-2 regulations be embodied in the specifications. The District has constructed 15-20 projects in the last ten years with no problems with existing standard regulations. The modification was unnecessary and involved a significant time delay and resultant increase in cost.

2. Project No. C171436-02, Treatment Plant Design, is 99% complete, but must be amended at this time to accommodate C-1 regulations.

3. C171436-09 presently is in the Step 1 level. This project concerns a landfill site. Grant was accepted October 19, 1978. Now the contract must be amended to meet all latest public participation regulations adopted pursuant to Federal Register February 1979.

4. Projects Nos. C171436-10, C171436-11, C171436-12 and C171805-2 were chosen to be approved by the Corps of Engineers after they were submitted to the State for approval. The Corps of Engineers review should have occurred and been required prior to the submission to the State for approval. The result of the new review requirements being applied retroactively is causing considerable delay and expense to accommodate all the Corps' requests for modifications.

5. C171436-04, Secondary Treatment, received both State and Federal EPA approval and was funded under the construction program. A temporary chlorination system was provided for a period of 92 hours when the final connections were to be made to existing system. This was necessary in that bypassing of sewage effluent to the river would be required for disinfection. Retroactively, State EPA officials with the concurrence of the Federal EPA pointed out that no less than existing treatment must be maintained at all times. The point involved in this project is once the State and Federal EPA's have funded a project, new regulations and/or the use of previously adopted regulations should not be enforced pursuant to the granted contract, especially when the project is under construction.

6. As mentioned in testimony, somewhere in the granting system there must be some latitude for discretionary judgment. This is nowhere more apparent than in the use of the O & M manual requirement. Currently it is interpreted by the regulatory bodies that a complete O & M manual is necessary for large or small projects, particularly in relationship to interceptors. The same detail of O & M is not necessary between large and small interceptors.

In conclusion, I do not wish to tax you or your committee with unnecessary documentation or to elaborate unnecessarily on the problems. I think it is enough to conclude that your direction of attempting to reduce the bureaucratic red tape by approximately 25% is an accessible goal. I hope that your committee will have some impact upon simplifying the granting process.

Sincerely,

SANITARY DISTRICT OF ROCKFORD

Jon L. Olson
District Director

CC: Joseph A. Italiano

Mr. MINETA. You mention problems caused by parallel programs within the same agency, that this causes conflicts. Could you cite some of those examples as well?

Mr. OLSON. The easiest one to come up with is in the area of sludge disposal problems.

Mr. MINETA. Let's pick up on that. That involves both the Resource Conservation and Recovery Act and the Clean Water Act. What are your problems—you mentioned siting as one?

Mr. OLSON. The problem is not there today. The problem is coming. When regulations are promulgated under section 405, from Public Law 92-500, we are going to be faced with regulations which are going to be so stringent, and we have been told that regulations are going to say if you cannot put it on the land, you cannot put it in the land. If that happens, where are we going to put it?

Mr. MINETA. For your plant of 45 MGD, how many acres do you need for sludge disposal——

Mr. OLSON. We have none. We are disposing of it in certified landfill. Under electroplating guidelines that were promulgated recently, if we were to take cadmium application rates in the worse sense, we would need 12,000 to 15,000 acres to dispose of sludge from our plant, and if we were to take it in the most concentrated acreage available, it would be 3,000 to 5,000 acres of application. That is a significant amount of land, and in our area due to heavy farming industries there is not that kind of land concentration. You couple that with land application problems of climatic nature, such as freezing and thawing and heavy rainfall, and we would probably be reduced from 365 days to somewhere in the neighborhood of 180 days available to apply, but the efficiency of land application is—we have looked at efficiencies and it is very inefficient, a very inefficient process for us.

We will not be able to find large acreages available on contiguous lots in order to apply the sludge. Farms in our area, even though they are going under corporate farming today, are still dealing with 300- to 500-acre parcels at best. When we are dealing with thousands of acres and have to be able to move men and equipment from one area to another in the application process, we are talking about a significant amount of time and money.

Mr. MINETA. What do you do right now to dewater the sludge?

Mr. OLSON. Vacuum filtration.

Mr. MINETA. And how do you transport that to wherever your landfill is?

Mr. OLSON. By 32 yard tractor-trailer units.

Mr. MINETA. How far is that from the landfill?

Mr. OLSON. 7.2 miles. It costs $500,000 a year to dispose of sludge for a 45-million-gallon plant.

Mr. MINETA. What about conflicts due to State laws, conflicts with Federal laws or deadlines.

Mr. OLSON. Are you talking about now in terms of sludge?

Mr. MINETA. Generally.

Mr. OLSON. That has not been a problem for us.

Mr. MINETA. It is not a problem?

Mr. OLSON. It has not been a problem for us. Our State got involved in some fairly stringent stream standards before the act was passed, and we were already meeting those.

Mr. MINETA. And is Illinois one of the delegated States under Cleveland-Wright?

Mr. OLSON. I believe so. They are the granting authority at this time. That was only granted in the last 12 months.

Mr. MINETA. Is that complete delegation for all of the functions?

Mr. OLSON. For four grants that are now waiting, the EPA has said that complete delegation is the responsibility of the State; all they do is fund.

Mr. MINETA. You note on page 4 that the EPA and the Congress must address the laws that duplicate regulations and provide conflicting regulations.

I am wondering again if you could expand on this.

Mr. OLSON. I was dealing with this in a general sense, mainly because the duplications have been something that occurred generally at the State and Federal level.

I have observed this as a member of AMSA. I think this is the place we have to deal with that.

Mr. MINETA. There are over 50 Federal laws and Executive orders that have to be dealt with, and probably in many instances, there are conflicts within those laws.

Mr. OLSON. I would like to expand on my statement. Maybe it would give you some clarification as to what I am trying to say.

If the Federal Government is only going to fund the construction grant program through 1985, then I see no reason for you to fine tune your system. It will be a waste of time. There will not be enough additional dollars in there to warrant the effort you would take.

If, however, sewage treatment and eventually the discharge standard, of course, in the country are going to be a continued problem that Congress will address through the year 2000, then it is time to fine tune it. Then it is time to go through the 50 Executive orders and other regulations and fine tune each act and the requirement with the others.

But if you are only going to deal with it for the next 5 years, then I don't think you have enough time to worry about it. I think your funding mechanism that you have available to you today, even with a minor amount of administrative fine tuning, is sufficient to get you through the program.

Mr. MINETA. Mr. Clinger?

Mr. CLINGER. Thank you, Mr. Chairman.

Mr. Olson, you have dealt, then, with both EPA and the States as granting authorities?

Mr. OLSON. That is correct.

Mr. CLINGER. Presumably from 1972 to 1977——

Mr. OLSON. Until today; we still have grants awaiting award right now.

Mr. CLINGER. Through EPA?

Mr. OLSON. Right.

Mr. CLINGER. So, this delegation to the State has only been recent?

Mr. OLSON. Yes, very recent.

Mr. CLINGER. And you are really not in the position to compare the time involved of application processing and program application between the two?

Mr. OLSON. Right. But as I stated in my statement, I don't believe the process has been any different than I anticipated it would be.

Mr. CLINGER. You do not anticipate any improvement or expeditious treatment as a result of the delegation to the States?

Mr. OLSON. Speaking from the bottom, looking up, I don't see any, and I expect none, not unless you undertake a major revision.

I think one of the questions asked earlier about the 25-percent reduction in bureaucratese, yes, that could be accomplished. As an administrator, I know what I would do.

Mr. CLINGER. You could mandate the reductions in the amount of time?

Mr. OLSON. I believe we could.

Mr. CLINGER. I guess we set deadlines for compliance with certain phases. You would say that you could turn that around and put deadlines on EPA?

Mr. OLSON. Here we go with the deadlines again. The problem with the deadlines is, you set up a deadline. The EPA eats up a third of it in the regulatory process. They can't really do anything until they have the regulations out.

It is like the pretreatment program. The clock has been running for 3 years. We have until the end of our NEPTUS permit, which is 3 years away. We have the remaining time. We have half of the organic, and none for the inorganic, that have had a program put on them.

So what I have said before, if you are going to put deadlines, then understand, within the deadlines, you have a series of components that have to happen in a logical order. EPA has to set regulations. We have to study and define the hardware, and then we have to implement.

They all take time. Your deadlines have to take all three of those into consideration rather than just one.

Mr. CLINGER. You have testified that the normal time span is between 10 and 15 years. Are we talking about different things?

We have heard testimony that the time is about 7¾ years.

Mr. OLSON. Let me explain what I mean by 10 to 15 years. You can infuse that in your other testimony.

If you are sitting on a board of trustees, or are a sewage treatment authority member, and your director comes to you and says, we are reaching the capacity of our plant, we are beginning to have operational problems, and some of our lines are running 95 percent of capacity, you as an authority may say, it is time we undertake a major expansion.

It is from the point of that decision to the time the final pipe is put in the ground that is the time frame I am talking about. It will take you 2 to 3 years for a major system to do a facilities plan. You do not have the expertise or the staff time available to design every piece of equipment simultaneously. So you begin to design some phases of it. You phase your design. That is what I am talking about.

Mr. CLINGER. So these steps you are talking about are really before you get to phase 1?

Mr. OLSON. Step 1 would be the first 2 or 3 years after the board has decided to go ahead. They have 2 to 4 years. The first thing I

do, once the board makes a decision for me to go ahead will take 2 to 3 years. That is the facilities plan, and then I have to submit that for a review.

It took us a very short time, because we were the first ones to get ours in. We were the first ones, and they did not know what to review. Otherwise, it would have been disaster.

Mr. CLINGER. I think the Rockford experience is atypical in the sense that you were able to take advantage of this very early on, you got in on the ground floor, and you were able to negotiate the labyrinth much more easily than some people that got in down the line.

Mr. OLSON. Your statement is very true. That is why I say we might be in the minority.

But I also contend, as an administrator, if you put me into another situation, I could get it through today.

Mr. CLINGER. Within the same time span?

Mr. OLSON. Within the same time span for the same amount of program.

Mr. CLINGER. You indicated you had completed 80 percent of your program, and expect to complete the program by 1981.

Mr. OLSON. I expect we will. We will do it within that 10-year period.

Mr. CLINGER. The bottom line is, what have you done to the water quality? Have you had a commendable increase in the water quality?

Mr. OLSON. No.

Mr. CLINGER. What would you say has been the improvement in terms of——

Mr. OLSON. It has allowed our community to expand. We have nothing to improve our treatment. Our primary removal lies between 90 to 95 percent. The best months are 95, and the worst months are 91. We were that 10 years ago, because we were a secondary system.

The construction grants program allowed us money to meet the growth of our community.

Mr. CLINGER. So it really has been primarily a growth facilitator?

Mr. OLSON. That is what it is in most of the grants programs. The communities that need facilities, and I am speaking of the interior communities, because I think the coastal removal situation is a whole different story, but the interior communities have secondary treatment. But in the smaller communities, that is a whole other story.

There are small communities around our city, our urban area, that I feel sorry for—1,000 to 5,000 population—they are getting contaminated ground water. They are too low a priority to get funding under the program, and they don't know where to turn. They are looking at $2 million for a treatment plant; $2 million doesn't sound like a lot of money, but when you look at it in terms of 1,000 or 1,500 people, it is.

Mr. CLINGER. Are you suggesting that some sweep it under the rug and hope it will go away?

Mr. OLSON. I think the smaller communities have been so frustrated by the cost, and no assurance that they are going to get the dollars.

Mr. CLINGER. Let me ask in another area, has all of this program been done through this act? In other words, the authorization of this act?

Mr. OLSON. The one I am talking about. We had 84-660 money prior to this act that I did not include in my presentation.

Mr. CLINGER. You have not dealt with Farmers Home, EDA, or any other agency?

Mr. OLSON. That is correct.

Mr. CLINGER. I am very sympathetic. I certainly endorse your suggestion of allowing portions of this to be done by certification at the local level through the grantees. I guess the problem is that where you are dealing with less sophisticated smaller towns, how reliable that certification would be.

But I gather you are suggesting sort of a loan-out program, where we would have the expertise available to the smaller communities. Assuming you have the expertise available, would it be your opinion that quite a great deal of this could be done on certification which hopefully would compress the time in which you could get these projects on line?

Mr. OLSON. I do believe so. I believe a responsible sewage treatment authority that has committed itself to meeting the intent of the act, and the guidelines therein, that act in a responsible manner, they will make a few mistakes——

Mr. CLINGER. This can be picked up by the audit, a periodic audit of the project.

Mr. OLSON. The new auditing requirements that have been promulgated this month, it would not be difficult to set up new guidelines. The Federal auditors will not audit our project. It will be done by local CPA firms. It will be easy to set up steps as to what they will audit, and so you can assure compliance.

Mr. CLINGER. Would it be possible now, under the law as it presently exists, to move some of this over into a certification process, or would this require a change in the basic law?

Mr. OLSON. I am not going to be presumptuous enough to say that I know the law and how it works. I cannot answer the question directly, but I know of no reason why it couldn't be with the power you have and the EPA being realistic enough to know they can save a lot of back time and money by doing that.

Mr. CLINGER. My previous suggestion that there should be some basis or authority by which requirements could be waived, could you amplify on that at all? How you see this could be workable? How do you allow the determinations to be made?

Mr. OLSON. You have a community of 5,000 people, and you wouldn't look at the advanced waste treatment at step 1. Why not waive that for a small community that is all residential discharge?

We know that there are background concentrations of almost every contaminant. But that is a given. You find that in a raw state in nature.

So let's eliminate advanced waste treatment considerations for them. Environmental impact reviews should be different for differ-

ent kinds of problems. They should not be the same requirements for everybody.

You take a small community of 5,000 people who will discharge to a major receiving stream, in some cases, the Mississippi River. If they are going to design a plant that is going to have primary and modified secondary systems in it, the chances of them ever having an environmental impact is just not going to happen.

If they are discharging into an intermittent stream that does not flow into natural waters, that is a different story again. Those are the kinds of things I am talking about.

Mr. CLINGER. Thank you, Mr. Chairman.

Mr. MINETA. If there are no further questions, Mr. Olson, I want to thank you very, very much for your presentation, and also for having submitted Mr. Linton's statement. It will be made a part of the record.

[The following was received for the record:]

## Statement of Ron M. Linton, Executive Director, Association of Metropolitan Sewerage Agencies

The Association of Metropolitan Sewerage Agencies offers these comments on factors that affect the rate of progress of the construction grants program under the Clean Water Act.

AMSA's 73 member agencies serve well over sixty million people. They are the ones who must actually carry out, at the local level, the mandates of the Act to improve our nation's water. To a great extent, the success or failure of the Act will be judged by the success or failure of our nation's major metropolitan areas in meeting clean water goals.

Major metropolitan agencies are not failing to meet water quality goals for lack of desire to meet them. When it is alleged that municipalities have not been as successful in meeting the Act's requirements as the private sector, we want to make it clear that this should not be interpreted to mean that the major municipalities themselves are dragging their feet. Speaking for AMSA's 73 members, who serve over a third of the nation's sewered population, the difficulties they have encountered have not stemmed from deliberate acts on their own part.

In fact, AMSA as an organization has repeatedly appeared before this committee, and has gone on record with unanimously adopted policy, in support of the goals of the Clean Water Act. In addition, we have formed special committees, held conferences and structured ourselves in order to work with EPA to make the Act work.

And yet, there are some of our members who have not been able to meet schedules, regardless of the efforts of the professionals involved. We wish to point out some of the reasons for this in the history of the program, and present recommendations for the committee to consider.

First, the impoundment of $9 billion in the early years of the program had the most significant effect in metropolitan areas, by crippling local efforts to begin the long process of studies and plans which must come before any plant construction. Local officials, seeing neither funding nor reasonable assurance of funding, simply were not willing to commit resources to the early developmental steps.

Second, major metropolitan areas have been at a disadvantage in their pursuit of funding for large projects through the state priority lists. It is not unusual that an AMSA member's project can require the entire annual allotment for its state for a year or two, yet there are competing needs being presented by smaller communities throughout the state. This presents state policy officials with the choice of having an impact with a single large grant or with many smaller grants. The decisions on such choices do not always reflect the urgency of water quality needs, and there is a tendancy for major cities to be left holding the bag.

Third, the complexity of problems increases geometrically in metropolitan areas with a multitude of local governments, districts and authorities, little or no comprehensive data and with unique physical and environmental problems difficult to reconcile with the rigid framework of a national program. This statement will comment further on this area below.

Fourth, we must note that EPA itself has been inadequately organized at first, and poorly staffed throughout, so that both headquarters and regional offices have rushed available resources to deal with one urgent situation after another, as long term efforts remained on the shelf. In periodic rushes to get funds obligated, large agencies with complex facilities and carefully coordinated programs are being reviewed alongside projects which are of far lesser scope, simpler to understand and quicker to approve. Metropolitan programs thus tend to be left on the shelf or at least moved back in the stack, while easier work is gotten out of the way, until the metropolitan situation itself reaches emergency status. Currently, the EPA's efforts to deal with hazardous waste problems and proposed legislation are inevitably leading to inattention to such questions as sludge disposal and water quality criteria and standards, questions which have long term implications affecting billions of dollars.

Fifth, we must cite the continued overlapping and duplicative review to which all projects, especially those for major treatment works, are subjected. The experience of the AWT review process will prove instructive on this point. The additional review ordered over a year ago will barely save what it costs through inflationary delays to projects which were ready to move forward, and the agency's calculations will not reflect the hidden, but real, inflationary costs of extended delays triggered at the state level by the Federal AWT reviews. The efforts to bring in the Corps of Engineers and to increase the role of the states in the construction grants program only add another set of active participants, unless the duties added in one place are in fact given up elsewhere. Otherwise, the process has been slowed rather than streamlined.

Others who appear at these hearings will offer specific remedies aimed at curing problems which they feel most immediately. AMSA can add to these suggestions with its own: eliminate the counterproductive industrial cost recovery requirements; focus AWT reviews on those projects which involve major dollar savings, not on every process above secondary which is up for approval; implement both laws and regulations to avoid retroactive application on design and planning; adjust pretreatment requirements to reflect the limits on knowledge and equipment now available; abandon a single national approach to equal employment and public participation to let each area craft programs which meet their special situations; and permit grant awards to foster new critical path or phased design-construct techniques which promise both time and money savings. In some of these areas, there has already been much improvement.

These specifics, however, are not the principal thrust of our comments today. As we look ahead to a period which will be increasingly tight for funding of all domestic programs, we offer the following suggestions to this oversight committee, in hopes of bringing about a more effective national effort which can advance our water quality goals within budgetary restraints.

The first necessary element is that all involved agreed on a continued national commitment to clean water goals. Without this, as we have said several times before, we cannot expect the kind of local and state commitments which are needed to carry it out. We cannot ask local leaders to take on difficult battles for siting and financing at their level unless they are convinced that federal promises will be fulfilled when the time has come. At present, there is a great disparity between the sum of national clean water needs and the money which is likely to be available. If every requried facility were ready to go to construction today, at present rates of funding it would be decades before they were all funded, and with present inflationary escalation of costs, it could be forever.

The second consideration is the review of the standards which drive treatment costs. This means recognizing our ignorance in many areas, and it means throwing away the cookie cutter approach to standard setting so that stream standards, permits and facility requirements are all based not on guesses as to what is probably a safe level of pollutant for some mythical stream invented by computer, but which reflects the actual conditions of the area in question. We must realize, for example, that if phosphates in the water stem from non-point sources, then expensive high levels of phosphate removal by one plant are not going to make a difference. We must realize that if water quality criteria are set below the levels of measurement by all but the most sophisticated equipment of a few national laboratories, then you cannot detect on an operating basis, you cannot tell how effective removal you are getting, and you cannot even enforce for the substance. This kind of analysis is expensive and time consuming, but the alternative of setting treatment requirements high enough to cover the areas of ignorance is even more expensive.

One special area we think is important enough to deserve specific consideration by the Congress: the problem of sludge. With increasing levels of treatment, we will be generating ever more sludge, and AMSA forsees problems across the country in dealing with the disposal of sludge, for lack of effective guidance from the Congress and EPA. AMSA has proposed a nine-point interim sludge management policy which is designed to avoid holding up agencies from proceeding while the nation develops an effective means of dealing with the sludge issue. We would be happy to discuss this with the committee in detail, but in this statement we wish only to emphasize that this is a critical problem which is threatening to cause complications throughout the program unless we confront it on a national basis, and soon.

Our next to last recommendation is that the construction grants program be purged of duplicative review. In a field which is composed of professionals inside and outside the government, the present procedures amount to an indictment of the entire field which it does not deserve. The major agencies, especially, can cite their own experiences of being put through review after review of projects which, at long last, end up in virtually the same final form as they had at the start. Audit functions and communication during project development are the appropriate controls, rather than re-working old ground at a mid point when such review delays are most costly.

Finally, AMSA urges the Committee on public Works to consider a separation of major metropolitan projects from those of smaller communities which have vastly different needs for technical expertise and which face vastly different water quality situations. Our members are able to move far more quickly toward better water quality than they can under the present program. For most, a state level review is not going to avoid the need for a similarly thorough Federal review, given the size of their projects. We would urge a system which severs the complex metro projects from the mainstream of projects developed by the some twelve thousand smaller communities which have only recently begun to come to grips with their water quality needs, and which still lack the local will or the local expertise to move ahead quickly. A system which puts a major project on its own track could pay off handsomely in terms of achieving a major water quality benefit, more quickly and at less cost in administrative effort, without sacrificing quality. We would be pleased to work further with the Committee on ways of implementing this proposal.

An important element of severing major city programs from those of smaller municipalities is the creation of a separate funding pot, so that metropolitan areas have the assurance of Federal support at the end of the long planning process. Although this Committee will be told of many lesser problems which involve the construction grants program in these hearings, it should not be lost sight of that the national commitment, including the funding commitment, is the driving force in carrying out the Clean Water Program as designed by the Congress.

Mr. MINETA. We appreciate your presence here.

The subcommittee will stand adjourned until tomorrow morning at 10 a.m., in room 2167 at the Rayburn Building, at which time we will receive testimony from Mr. Costle, the Administrator of EPA.

The subcommittee stands adjourned.

[Whereupon, at 1:35 p.m., the subcommittee adjourned, to reconvene at 10 a.m. the following day.]

# IMPLEMENTATION OF THE FEDERAL WATER POLLUTION CONTROL ACT (THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANTS PROGRAM AND THE STATE MANAGEMENT ASSISTANCE PROGRAM)

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THURSDAY, NOVEMBER 1, 1979

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND REVIEW OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 10:20 a.m. in room 2167, Rayburn House Office Building, Hon. Norman Y. Mineta, chairman of the subcommittee, presiding.

Mr. MINETA. The subcommittee will please come to order.

Today the Subcommittee on Oversight and Review resumes its inquiry into management and accomplishments of the municipal waste treatment facilities construction grants program.

Our witness this morning is Hon. Douglas Costle, Administrator of the Environmental Protection Agency.

Mr. Costle, it is a pleasure to welcome you here this morning to review the status of this multibillion-dollar undertaking, and the progress we are making in cleaning up the Nation's waters.

As I am sure you know, this subcommittee has had a continuing concern about the management of the program, and the ability of those involved to realize the greatest amount of cleanup possible.

Unless any other members of the subcommittee have any opening remarks, Mr. Costle, I would ask you and your associates to rise so I might swear you in.

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. COSTLE. I do.

Mr. LONGEST. I do.

Mr. CAHILL. I do.

Mr. COOK. I do.

Mr. SMITH. I do.

**TESTIMONY OF HON. DOUGLAS M. COSTLE, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY HENRY M. LONGEST, DEPUTY ASSISTANT ADMINISTRATOR FOR WATER PROGRAM OPERATIONS; HAROLD CAHILL, DIRECTOR, MUNICIPAL CONSTRUCTION DIVISION; MICHAEL B. COOK, DIRECTOR, FACILITY REQUIREMENTS DIVISION; AND JAMES SMITH, ASSOCIATE ASSISTANT ADMINISTRATOR, WATER AND WASTE MANAGEMENT**

Mr. MINETA. At this time I would like to introduce for the record, without objection, a copy of a letter dated October 24, 1979, from the subcommittee to Administrator Costle, setting forth the subjects we look to examine here today.

[The following was received for the record:]

HAROLD T. (BIZ) JOHNSON, CALIF., CHAIRMAN

Committee on Public Works and Transportation

Congress of the United States
House of Representatives
Room 2165, Rayburn House Office Building
Washington, D.C. 20515

B-376 Rayburn Building
Washington, D. C. 20515
October 24, 1979

The Honorable Douglas M. Costle
Administrator
U. S. Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460

Dear Doug:

The Subcommittee on Oversight and Review of the Committee on Public Works and Transportation has scheduled hearings for October 30 and 31, and November 1, 1979 to review the progress and management of the Municipal Waste Water Treatment Facility Construction Grants Program being carried out under Section 201 of the Federal Water Pollution Control Act, PL 92-500, as amended.

The Subcommittee has been closely monitoring the implementation of this multi-billion dollar grants assistance program for several years. Our investigations and numerous days of oversight hearings have pointed out that the combination of unrealistic statutory deadlines, inadequate management resources, excessive red tape, tremendous uncertainty as to the amount and continuity of funding levels, and numerous other factors have adversely affected the ability of those responsible for management of the program to ensure that grant projects are processed expeditiously and of high quality.

In 1977, amendments to the Clean Water Act were enacted. Certain of these were intended to simplify and expedite this effort to cleanup municipal waste water discharges. Almost two years have passed since these management tools and resources were made available by the Congress, and we believe it would be appropriate at this time to examine the program's progress and performance.

The Honorable Douglas M. Costle
October 24, 1979
Page Two

The Subcommittee requests that you appear before it during these hearings to discuss your experiences with the construction grants program and your views on the effects of existing statutory and administrative authorities and requirements. To assist you in preparing for these hearings, the following points should be considered:

- A review and progress report on the municipal construction grants program from October, 1972 through September 30, 1979. This should include the total amounts appropriated, obligated, and expended for each fiscal year, and current "unobligated balances" excluding FY 80 appropriations.

- A review and status report on the implementation of the State Management Assistance Program (the Cleveland/Wright Amendment) authorized under Section 205(g) of the Act. This should include a listing of those states which have approved delegation agreements, the date the agreement was completed, the date and amount of grant for each fiscal year to date, summary of the functions delegated, your expectations as to when each of the presently delegated states will assume full delegation and achieve full operational status, and when the remaining states are expected to assume delegation, if at all. We will also appreciate a summary of those problems or other factors which have hindered or assisted your efforts to implement this section.

- Your assessment of these factors which most significantly affect a project's rate of progress in the grants program and the measures you are taking to minimize the amount of paperwork, eliminate duplication of effort between EPA and state water pollution control agencies and to further streamline and expedite the program.

- The Agency's policy on retroactive applications of rules, regulations, and guidance.

- A progress report on the review of AWT projects including the total number reviewed to date, a summary of the results (including costs, benefits, and delays) of these reviews, and the numbers of reviews currently pending.

- A summary of the Agency's current National Municipal Policy and Strategy and how available and anticipated construction grant dollars, and statutory goals and deadlines are to be reconciled with currently estimated needs.

- A summary status report on the number and cost of projects currently "awaiting construction" (those up to 6 months and those over 6 months should be identified), the number and cost of completed projects, identifying the number of completed POTW's separately and the number and cost of projects at the "beneficial occupancy stage" again, identifying separately those that are POTW's.

We will also appreciate information on the following items, as an appendix to your statement:

- The total number and cost of PL 84-660 and PL 92-500 projects (the latter by step) which have not been "closed out."

- A listing of those laws (the specific provisions), executive orders and other requirements which must be addressed during the Step I, II and III process, other than those called for by PL 92-500, as amended.

- A listing of those requirements contained in PL 92-500 which must be considered in the Step I, II and III process as a condition of grant approval, and a list of agency guidance and requirements, other than formal regulations, with a summary of the purpose of each requirement.

- A review and progress report on the requirements to consider alternative forms of treatment under Section 201(g)(5), including the number of projects and obligations to date, under Section 202(a)(2) -- 85% grants for innovative or alternative treatment technology.

- A review on the benefits which have resulted from combined step II and III grants authorized under Section 203(a), and the 4% set-aside of annual allotments for small communities.

- A review and summary report on the obligations and expenditure of grant funds for "pipe projects" by fiscal year and Needs Survey Category.

- A review and status report on the implementation of the Section 301(h) provision for modifying ocean discharge requirements.

- A summary and status report on the development of a "multi-purpose project" funding policy.

- Your views and comments on the issues and recommendations raised by the ACEC Operation PUMP.

The Honorable Douglas M. Costle
October 24, 1979
Page Four

It is planned that you will make your presentation on Thursday, November 1, 1979, at 10:00 a.m. in Room 2167 of the Rayburn Building. At the hearings we ask that you summarize your statement in about 20 minutes in order to permit time to respond to questions the Members may have, as well as to issues raised by preceding witnesses. We ask also that you be accompanied by Messrs. Longest, Cahill, and Cook from the Office of Water Program Operations. Of course, if you wish to have any other staff accompany you, and to participate, you may do that.

In accordance with the rules of the House of Representatives, we ask that your statement be furnished prior to the hearings. Please arrange for 100 copies to be sent to the Subcommittee offices in Room B-376 of the Rayburn Building, by the close of business on Tuesday, October 30, 1979.

We look forward to your participation in these proceedings and to an interesting and productive exchange of information.

Sincerely,

NORMAN Y. MINETA
Chairman
Subcommittee on
Oversight and Review

JAMES C. CLEVELAND
Ranking Minority Member
Subcommittee on
Oversight and Review

Mr. MINETA. With that, Mr. Costle, if you would introduce those with you this morning, and then proceed with a summary of your written statement?

Mr. COSTLE. Thank you, Mr. Chairman.

Mr. Chairman and members of the subcommittee, I appreciate having the opportunity to appear before you to review the progress to date, and the future outlook of the construction grants program. With me today from our Water and Waste Management Office are Jim Smith, Associate Assistant Administrator, Henry Longest, Deputy Assistant Administrator; Hal Cahill, Director of the Municipal Construction Division; and Mike Cook, Director of the Facility Requirements Division.

In the interest of time, and with your permission, I would like to submit a copy of my prepared statement and the attachments requested by the subcommittee, and instead use my time this morning to summarize my statement for you.

Mr. MINETA. Without objection, those will be made a part of the record.

[The following was received for the record:]

STATEMENT OF
DOUGLAS M. COSTLE
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND REVIEW
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES
NOVEMBER 1, 1979

Mr. Chairman and Members of the Subcommittee, I appreciate having the opportunity to appear before you to review the progress to date, and the future outlook of the Construction Grants Program. With me today from our Water and Waste Management Office are Jim Smith, Associate Assistant Administrator, Henry Longest, Deputy Assistant Administrator, Hal Cahill, Chief of the Municipal Construction Division, and Mike Cook, Chief of the Facility Requirements Division.

Let me begin by commenting on the timeliness of this oversight hearing: We have just gone through the initial phases of implementing the 1977 Amendments to the Clean Water Act which included a number of changes in the administration of the Contruction Grants Program. Although I will discuss the progress of implementing most of these changes in more detail shortly, I would like to note now that the major innovation was a significant shift in the character of the program from a strong federal orientation to a primarily state effort under section 205(g), the State management assistance provision.

As a result of State assumption of administrative responsibilities, we now project that 25 percent of the program will be handled by the States by late 1980; this is expected to rise to 45 percent by late 1981. Chart 1 explains in more detail the progress of State assumption of the program. Although EPA will remain strongly involved, this delegation of responsibilities means that States will more and more bear the burden of day-to-day decisionmaking. It will be far more in their hands to ensure effective implementation as well as to deal with causes of delay, and concomitantly, their actions will require, to the extent possible, close oversight and scrutiny.

With that in mind, I would like to turn to a review of the program - its achievements, its problems, and its future.

I. Status of Program

Overall, the program has made significant advancement since its enactment in 1972. Of the more than $28 billion appropriated by Congress since 1972, we have awarded $24.2 billion in grants for approximately 17,000 projects throughout the country. This includes 5,275 active Step 1 - planning grants totalling $589.4 million. These projects represent additional grant requirements for design and construction of $20.6 billion. We also have 1,639 active Step 2 - design grants at $456.5 million. These projects

will require additional funding of $7.9 billion for construction. This represents a total of $28.5 billion "in the pipeline" - funding needed to complete on-going projects now in progress. In addition to on-going projects, we have completed 1,862 projects worth $2.1 billion which were initiated under the 1972 law.

From these figures, it is readily apparent that the Construction Grants Program has been the largest single monetary effort to clean up our nation's water. It also represents the largest non-military, public-works program since we started building the Interstate Highway System. Quite legitimately, one can then ask, what has been the public benefit from this expenditure of funds? Are these monies achieving the goals set by Congress in the Clean Water Act?

It is difficult to respond to the first question as fully as I would like. Our monitoring efforts, although continually improving, have not been as good as we would like. In addition, except for a relatively small number of areas, reliable and comprehensive national water quality data go back only four or five years. This leaves us with little basis to provide a long-term comparative analysis of the effectiveness of our clean-up efforts.

Nonetheless, a discernable trend of improved pollution control through municipal waste treatment efforts does exist. During the five years from 1973 to 1978, flow reaching treatment plants increased nationally by 7.2 percent as a result of new sewers. During that same period, pollutants reaching treatment plants, as measured by biochemical oxygen demand (BOD) and total suspended solids (TSS), increased by a similar amount. Despite the increases of flow and pollutants, effluent pollutants discharged from municipal plants have dropped, reflecting improved pollutant removal techniques. Perhaps the most significant result of these increased efficiencies is that total removal of BOD and TSS pollutants in municipal plants has risen from 20,618 metric tons per day to 25,049 metric tons per day, an improvement of 21.5 percent.

These treatment facility efficiencies, along with increased control of industrial discharges, have made clear-cut improvements in water quality.

Some of these improvements have been dramatic:

- The Willimantic River in Connecticut was so polluted by wastes from textile mills and metal platers that the state fish and game agency had to stop stocking it with trout; pollution killed

them off too fast. Now, due to control of 32 industries and improved wastewater treatment in two cities, stocking has resumed, the trout are thriving, and not a single fish kill has been reported in years.

- In the early 1960's, Bogue Lusa Creek in Louisiana was so grossly polluted that a scuba diver checking a paper company's outfall suffered severe chemical burns; the water was so corrosive that it stripped the paint from a thermometer placed in the creek to measure its temperature. Today, following municipal and industrial clean-up, pollution-sensitive fish such as catfish, bream, white perch and large mouth bass have returned.
- A decade ago, Lake Erie was one of the most tragic examples of pollution in the country. Massive algal blooms covered the lake with slimy green mats; fully 65 percent of the bottom water, because of the algae, was totally devoid of oxygen in the summer months. Today, thanks to municipal and industrial pollution controls, only 6 percent of the bottom water lacks oxygen, clear-water game fish planted in the lake can now survive, and beaches closed for more than a decade have been reopened.

- In the late 1960's, the once-beautiful Minnesota Lake Minnetonka's ability to restore itself was being destroyed by man-made over-fertilization. Its waters were turbid with stinking algae, much of its surface was covered with green scum, and its muck-strewn bottom covered with a growing residue of rotting plant life. The lake was old before its appointed time; Minnetonka was dying. Assistance by the Construction Grants Program resulted in the phase-out of more than a dozen small treatment plants and the entire removal of treatment plant discharges from the Lake Minnetonka basin. Now, these once dark and murky waters are transparent -- fishermen can see the bottom. Its beaches and coves, once threatened by excessive algae blooms, are again attractive retreats for swimmers, nature lovers and sportsmen.

EPA has more than 70 examples of such clean-ups in waters large and small, from Hawaii to Maine, and from Alaska to Texas. They prove the success of our clean-up efforts in areas where these efforts have been carefully monitored for a sufficient period of time.

II. 1977 Amendments - Implementation

Let me turn now to EPA's efforts to implement the 1977 Amendments to the Act, which included a new focus on innovative and alternative technologies, special assistance to small communities, and the 205(g) State management grants.

The initial impact of these changes was to create uncertainty and instability in program administration. EPA, for its part, worked to minimize the uncertainty and delay during the transitionary period after enactment: interim regulations were published in four months; final regulations were out in nine months. Nonetheless, as State and local officials attempted to respond to these mid-course corrections, there was a natural slowdown of decisionmaking and obligation of funds. In addition, EPA regional and State staffs devoted a significant portion of their resources to negotiating delegation of management responsibilities under 205(g). Further, the availability of additional funding for innovative and alternative technology had the effect of inducing reconsideration of some projects already underway.

Since the initial slowdown, however, there has been a steady recovery in the rate of obligations. In FY 1978, only $2.4 billion in funds were obligated by the States. This was a drop from over $4 billion per year in the preceeding three years. We are pleased that, despite our early projections for FY 1979 of only $3.3 billion in obligations, we actually achieved $3.9 billion in obligations. If you will refer to Chart 4, you will see that we expect to increase our obligation levels even further this year and next year. We are currently getting estimates in from our regional offices indicating that obligations in FY '80 and '81 will be higher than shown on the Chart, in the range of $4.5 billion, thus accentuating the gap between appropriations and obligations.

Let me discuss briefly the progress in implementing the major 1977 Amendments to the Clean Water Act as they affect the Construction Grants Program:

- Under section 205(i), a percentage set aside of allotments is required to increase construction grants for projects utilizing innovative or alternative technologies.

This effort has been in operation for approximately one year and the results to date are for the most part encouraging. As of September 30, 1979, 132 projects had been approved with alternative technology and 30 projects

with innovative technology. The total Step 3 value of the innovative and alternative portions of these projects is more than $380 million. We feel this response by communities to the alternative and innovative technologies grants indicates the need and value of such assistance. We are concerned, however, by the short lead-in time provided for this new program effort. For FY '79, $84 million was set aside to fund the increase from 75 percent to 85 percent in the Federal share. Projects have been approved which ultimately will use approximately 50 percent of the set-aside. Many of these projects are in planning or design, however, and will not utilize a large portion of the set-aside before Setember 30, 1980, at which time the FY '79 funds will be subject to reallotment., Our expectations are that this will be a one-time occurrence and we will see full utilization of the monies set-aside for FY '80 and '81 in most if not all States.

With regard to the alternative technology projects thus far approved, most are in small communities and feature land treatment facilities, community septic tank/drainfield systems and on-site treatment.

To date, a variety of technologies have been accepted for funding as innovative technology, including a special activated carbon process for treating municipal wastewater with a high industrial component, a unique screening process for removing algae from a wastewater treatment pond effluent, and an oxygen-fed fluidized bed unit for biological treatment of wastewater. The projects are good ones in that they fulfill the basic criteria and objectives set out for the innovative technology program. Nonetheless, we feel that more could be done by grantees to achieve the goals of this program, and we are continuing to encourage consulting engineers to accept the challenge and the opportunity to be truly innovative which it offers.

- Under section 205(h), a 4 percent allotment set-aside is provided for States with significant rural populations to be used in developing alternatives to conventional treatment works for communities with populations of 3500 or less, or sparsely populated areas of larger communities.

EPA has developed an aggressive program to encourage small wastewater systems. As of September 30, 1979, approximately 30 rural small communi ies have been awarded grants totalling $10 million for design and construction of alternative technology systems. Our priority list data identifies over 100 additional projects that will draw on the 4 percent set-aside funds. Considering the time that

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can be involved in Step 1 planning, we believe that this obligation rate for Step 2 and Step 3 grants indicates a successful approach to meeting the needs of smaller communities. Once again, we do face the problem of an insufficient start-up period for planning and design under this program, with the end result that initial funds may be subject to reallotment.

Without going into extensive detail, EPA's efforts under 205(h) have been directed toward getting requirements and design data to the communities, both through publications and personal meetings and seminars, providing on-site technical assistance to projects underway, preparing an information folder on possible alternative systems (available November, 1979), and contracting for a manual for on-site wastewater treatment and disposal systems (available February 1980).

- The most significant impact of the '77 Amendments is the 205(g) provision which authorizes a portion of the allotment, to be set aside for funding state administration of the Construction Grant Program. To date, 30 agreements have been signed with States delegating authority for

administering the program. Another 12 agreements are now being negotiated. As shown in Chart 3, this has entailed turning over 73 separate functions to the States.

The initiation of a delegation program in any State does not immediately relieve EPA of the primary program management responsibilities. Each delegation agreement constitutes an agreement that the State will assume the management of the program in accordance with an activity- and date-specific schedule based on the capability of that particular State to assume the various program responsibilities. Several factors determine the pace at which activities are delegated, including: level of State experience prior to delegation, the numbers and training of necessary staff, the State's ability to hire staff given salary schedules and the job market, and the technical complexity and environmental sensitivity of the particular activity. The net result is that completion of a delegation program, from start to finish, may require from two to more than four years. As an example, Chart 2 sets out New York State's schedule for assumption of responsibilities. In some case, the delegations are experiencing delay. For example, if you refer again to Chart 2, you will note that New York State had planned to have 233 people on-board by October 1, 1979, but in fact, had only hired 135.

When the State assumes full responsibility for a delegated activity, EPA will continue to monitor a sample of the State actions to ensure performance. In addition, there are a number of activities, not delegable to the States which will remain EPA responsibilities: NEPA activities, actual grant awards, protest resolution and final resolution of audits, as well as the advanced wastewater treatment review process which is presently consuming a major amount of EPA staff time.

Agreeing to accept the day-to-day responsibilities of the program is not an inconsiderable burden, and some States have refused to accept it. In part, this stems from an uncertainty on the part of the States that funds will be there to see the program to fruition. Another problem that surfaced under the delegation to California, one of the two States (with New Hampshire) to assume full responsibilities to date, is that it feels the 205(g) funding level is not proving sufficient to meet its needs.

I. Causes of Program Delays

EPA is, justifiably, I believe, pleased with the progress in implementing these Amendments, and with the steady improvements we see in overall program efficiency. However, in responding to the second question I raised - whether the goals set by the Congress in the Clean Water Act are being met - I would be less than candid, despite our achievements

to date, if I tried to give an even qualified "yes" in response. For example, by 1977, all major municipalities were to have met secondary treatment standards; all major industries were to be using "best practical technology." Yet, on July, 1, 1977, only about 40 percent of major municipal dischargers had achieved secondary treatment; about 80 percent of major industrial dischargers were using "best practical technology."

Nonetheless, I believe our record has been good considering the obstacles the program has faced. A review of these "obstacles" is appropriate at this point, both to better understand why the program has suffered delays, and also to better understand the position of the States as they assume more responsibilities for program operations.

First, the Construction Grants Program is massive. Preparing and issuing implementing regulations was a formidable task, which took over two years to accomplish. Almost immediately, we were confronted with a lack of commitment on the part of the then-Administration. Our first release of construction grants monies was held up by impoundment of funds. More recently we have been faced with a cutback in appropriations, in part, because of high unobligated balances in some States. This has had the effect of penalizing other States. If you look at

Chart 4, you can see that obligations are increasing more rapidly than appropriations. Although there does exist a certain amount in carryover funds which will, for a time, fill this gap between projected obligations and appropriations funding, the overall perception by the States and local governments is that the funds are not being made available to see projects which are being planned through to construction. States with efficient programs are already being hampered by the funding shortfall.

In addition to funding-related problems, the program has been beset with a myriad of implementation problems stemming from the need to coordinate some 54 Federal laws and executive orders which must be complied with in any construction of a treatment facility. Fulfilling the applicable requirements under these laws can be both resource intensive and time consuming for States and local governments attempting to construct needed treatment works. I have attached to my statement a fairly comprehensive list of these Federal laws and executive orders, which includes, to name a few, the Clean Water Act, the National Environmental Policy Act, the National Historic

Preservation Act, the Coastal Zone Management Act, the Endangered Species Act, and the Safe Drinking Water Act. Chart 5 lists general areas of Federal statutory requirements which impact the Construction Grants Program. All of these can affect siting, design, planning and construction of any treatment works and can result in delay and increased costs in meeting the Clean Water Act requirements.

In addition to these Federal laws affecting the program, many States and local laws and ordinances have requirements with which facility planners must comply. These, again, can cause costly delays as necessary permits are obtained and special requirements met.

Let me exemplify the impacts of these Federal and State requirements by drawing on a couple of POTW construction problems encountered in California.

A recent construction grant application from San Francisco for major sewer construction along the California coast was submitted. Because it involved some disruption of the Coastal highway, it was necessary to obtain a permit from the California Coastal Commission. To finally obtain this permit, the municipality had to agree to become involved in beach stabilization efforts as well as

rebuilding of the highway, far beyond any disruption to be caused by the sewer construction. Complying with this law was both time consuming, involving several months of negotiation, as well as costly in fulfilling the additional permit demands.

Another example occurred on the bay side of San Francisco in connection with another project involving sewer construction. Much of the area involved had been built up as a result of years of land filling, some of which covered old boats that had been beached and left as worthless by their owners during the 1800's. The antiquity of these boats brought the National Historic Preservation Act into play, requiring the full-time services of an archeologist, as well as a complete halt in construction activities each time a boat was encountered while its historical value was assessed and its preservation assured. Needless to say, this delay was not only costly in time, but also monetarily as the contractor's payments continued during these idle periods.

By my reference to this plethora of applicable Federal, State and local laws, and to these specific examples, I am not suggesting that there are "too many," or, indeed, that any one should not apply - obviously each one reflects an important national concern. Futher, not every law affects every project, nor does the time involved in complying with

the requirements of any individual statute necessarily cause great delay, but the cumulative impact of responding to these laws has been a significant cause of program delay overall.

In addition, I might point out that the 1977 Amendments, themselves, added over 30 provisions to the requirements of that Act which affect the Construction Grants Program.

No federal construction program could ever be considered easy to administer, but few have the complexity of the Construction Grants Program, with its reliance for any one project on the actions of thousands of persons in the Federal, State, and local governments, as well as private contractors, architects, consulting engineers, etc. At each step of the process, more new individuals must become involved, and if any one drags his feet in taking the required action, we have limited recourse.

In a recent effort to pinpoint where delays were occurring in the system, EPA conducted a study of 2,500 facility plans in the various regions. A copy of the breakdown of the results of that study is attached for the record. The national results were startling: grantee

delays accounted for over 22 percent; almost another 20 percent of delay was attributable to architect or engineering consultant delays; and 14 percent was caused by the States. As a result of this survey, we advised the individual regions of, in particular, the need to obtain the services of consultants who were not so overloaded with other projects that they were unable to deal effectively with the complexities of the Construction Grants Program. In addition, we stressed the importance of working closely and regularly with these consultants to clarify and explain requirements.

Dealing with local (grantee) caused delays is more difficult. These most often result from a lack of local funds, differences of agreements between local entities on priorities or funding mechanisms, public reaction, inter-municipal agreement negotiations, and establishment of appropriate user and Industrial Cost Recovery charges. We are often without recourse to require timely resolution of these community-based decisions, other than making ourselves available for advice and consultation on how other communities have resolved similar problems.

One other serious cause of delay occurs under the requirement for EPA Headquarter's review of advanced wastewater treatment (AWT) or advanced secondary treatment projects with incremental costs in excess of $1 million. This requirement, adopted by the Appropriations Committees, was designed to curb what they believed to be excessive zeal in constructing non-cost-effective advanced treatment works on the part of EPA and certain States.

Decisions to go to AWT are more often dictated by State than by EPA-imposed limitations. Over one half of the States, pursuant to their authority under the law, have blanket provisions requiring achievement of stringent standards regardless of whether these treatment levels are required to meet Water Quality Standards. This raises the question of whether meeting such requirements might not be too expensive compared to the benefits achieved.

The major question concerning AWT, in fact, has revolved around the justification for requiring stringent treatment levels. Studies have indicated that AWT projects have proceeded with inadequate planning and justification, incurring excessive expenditures for insufficient compensating benefits. We agree entirely with the need for better planning and justification for projects and have taken steps to ensure improvements.

Thus far, out of 64 projects retained for review, 38 are completed and another 12 awaiting final action. The cost savings to the program, through preventing unneeded construction as a result of this review procedure, is not inconsiderable. On those projects where review has been completed, we estimate $35 million has been saved on construction costs. Additional saving will be recognized through reduced operating and maintenance expeditures. While these savings are substantial, we estimate that project delays inherent in Headquarter's review have increased original project construction costs through inflation by $93.6 million.

The Headquarters has prepared a thorough methodology for review of advanced treatment projects. This methodology will be discussed with regional and State personnel in workshops in early December. We believe that it can be applied by the States and regions, and that the time-consuming and costly Headquarter's review can be eliminated. Regional review of projects has resulted in capital cost savings of $29 million or 44 percent of the cost of advanced treatment in all projects submitted for regional review during the past five months.

I would like to mention one recent problem which has arisen, and which may be a potentially significant cause of delay in the program. This is the October, 1979,

recommendation by GAO that EPA fund 75 percent of the cost of wastewater treatment allocable to Federal facilities. This is contrary to the policy EPA had adopted and implemented since the Act was in force, namely, that the cost of pollution control allocable to major Federal facilities would be paid through direct appropriations. The GAO decision has already delayed projects involving Federal facilities. If EPA is required to revise its procedures to meet GAO's interpretation of the Act, a point on which the Act is silent, it could lead to a disruption of established State priorities for use of available grant funds.

IV. Future of Program Implementation

Despite the delays caused by the inherent complexities of the program, by the inability to get timely decisions, and by implementation of changing requirements under the Clean Water Act along with the 54 other applicable laws, our estimates now indicate an average completion time of seven to nine years, from Step 1 through final construction. Chart 6 breaks down this time period by program phases. If we can hold to these schedules, we have the potential to achieve marked results in our pollution control effort in the next ten years.

We will not achieve this result, however, without the combined commitment of the Congress, EPA, and the State and

local governments. From the Congress, we must have stability in the program - a minimizing of legal changes in requirements. Equally important is a level of funding high enough so that grantees will know funds will be available to complete a project once the initial obligation is made. EPA estimates the nation's total municipal wastewater treatment requirements at $106 billion in 1978 dollars, approximately $80 billion of which will be Federal funds. Adjusting for the available appropriation lowers the Federal share to $70.2 billion. We estimate that this amount can be further reduced administratively, through such measures as the stringent application of cost-effectiveness guidelines and AWT reviews, to roughly $53.2 billion.

Inflation is rapidly escalating these cost estimates. Just between 1976 and 1978, inflation caused a $13 billion increase in cost estimates. At the current annual inflation rate of 13 percent in the wastewater construction industry, costs are rising even more rapidly than in the past. At a constant funding level of $4 billion and an inflation rate of 7 percent, it would take approximately 41 years to complete the $53.2 billion program. To complete this program in 10 years at 7 percent inflation would require an annual funding level of $7.6 billion.

Understandably, these needs are concentrated in the nation's large urban areas. Of the 263 Standard

Metropolitan Statistical Areas (SMSA), 106 each have treatment needs to achieve secondary levels and levels more stringent than secondary (Categories I and II) in excess of $50 million. Total needs for these SMSA's just to achieve secondary are approximately $15.5 billion.

Further, the States must have confidence that there will be adequate funds to administer the program before there will be an effective implementation of the 205(g) delegation responsibilities. As I mentioned, we have already seen some States refuse to accept this responsibility for fear that "the rug will be pulled from under them." In addition, the appropriate funding level of 205(g) grants, now tied to 2 percent of appropriations, may need reconsideration in light of the California experience.

One other point which we would recommend for congressional consideration, as discussed in detail above, is an elimination of the requirement that the Administrator personally sign-off on advanced wastewater treatment projects. This is a function which can be handled at the State and regional level and thereby reduce considerable delay and costs in the implementation of the program.

EPA, for its part, is implementing measures to provide stability -- critically needed stability -- to the program. No new program requirements will be applied to projects having Step 3 grant assistance where construction is already underway or likely to be underway within six months of the grant award. We will avoid applying new requirements retroactively to projects in Step 1 or Step 2 funding unless they are essential to implement new laws or to correct serious deficiencies in the program.

An example of such corrective application involved the policy on funding of sewage collection system projects, issued in March 1978, to clarify the eligibility question of new collector sewers primarily serving growth as opposed to eliminating existing pollution problems which are the priority needs of the program.

This occurred with a project in South Pymatuning, Pennsylvania, where the retroactive application of our collector policy to a current project resulted in considerable cost savings to EPA and local residents.

The project as designed called for sewers to be constructed in the small village and throughout the adjacent rural area, connecting into a nearby interceptor sewer to carry the wastewater to a regional facility. The $4 million project involved a local share of $1.8 million, with

resultant costs to the users of a front foot assessment of $1,100 to $110,000 per unit plus a tap-in fee of $500/each connection and approximately $200 per year sewerage fee. EPA and the Appalachian Region Commission were to bear the balance of the costs.

The EPA professionals assigned to evaluate the project design and municipal financing recommended that the sewers in the rural areas be deleted, thereby reducing the project costs by $2,200,000. The originally planned bond issue was set aside and a 40-year 5 percent Farmers Home Administration loan was obtained. Individual assessments were eliminated, and user charges were reduced to approximately $150 annually for each household.

All other necessary new requirements will be minimized and phased in to provide needed stability to the program.

Before I close this morning, I would like to describe one further effort of EPA to provide effective implementation to the Construction Grants Program. This is the Agency's recently initiated National Municipal Policy and Strategy, through which we hope to be able to guide States and municipalities to timely completion of priority projects by tying construction funding to statutorily-required timetables for meeting effluent guidelines.

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Approximately 17,000 publicly-owned treatment works have now been issued National Pollutant Discharge Elimination System (NPDES) permits. About 60 percent of those - more than 10,000 - require some degree of new construction or major modification in order to meet statutory treatment requirements. Of the remaining 7,000 which do not require major modification, more than half are in violation - to some degree - of their permit requirements.

Under section 301(i), EPA is authorized to provide to publicly owned treatment works an extension of the deadline for compliance with statutory requirements where facility construction or modification has been delayed.

The strategy involves three major components:

- First, all major treatment plants will be classified according to several criteria. The criteria include such variables as funding eligibility and impacts on receiving waters.
- Secondly, all noncomplying plants in the classification schema will be placed on specific schedules for meeting applicable standards.

  In these two steps - classification and scheduling - plants which qualify will be granted a 301(i) extension. Plants which don't will be given a special Administrative Order

which will set forth the deadline requirements they must meet. And in worst possible cases, referrals will be made to the Department of Justice for prosecution of hopeless violators.

- Finally, the cleanup schedule any given POTW is placed on will be closely coordinated with the availability of construction grant funds. State Priority Lists for construction grant funding should be reordered as necessary through State cooperation. Funding will be allocated to projects which meet statutory requirements <u>before</u> any allocations are made to other projects, to the extent authorized by law.

We believe this coordinating of the stick with the carrot will result in more efficient construction of priority projects and, therefore, a more timely achievement of our national water quality goals.

With these new measures, with continued training and assistance to the States and grantees, and with a joint congressional - EPA effort to provide stability, we should see a reduction in project completion time from the present 7-9 years to 6-8 years within two years. During the same period, obligations can be increased substantially. Such

progress is contingent, however, in large measure on State performance of delegated activities as well as a strong congressional commitment to adequate funding.

V. Conclusion

In conclusion, let me return to a point I made earlier in my remarks - after the initial slowdown resulting from the mid-course corrections of the 1977 Amendments, we have managed what I believe to be a remarkable recovery. We expect the present trend of obligations to continue upward, a positive sign that we are moving forward in achieving National pollution control goals.

Our efforts under the program are geared to ensure construction of projects in an environmentally responsible manner, and planning projects to meet the highest ecological standards and yet make them as cost-effective as possible. At the same time we are building projects which are sensitive and responsive to the needs of the community.

We have accomplished these objectives while adapting to the changing realities of our times, such as energy conservation, inflationary costs of constructing and operating plants, and increasing public participation.

We have not achieved these accomplishments without difficulties - often significant difficulties resulting in costly delay. Earlier in this statement, I discussed these

problems. Although, some of them are historic, let me emphasize that many of the factors which cause delay are here to stay, and as EPA has had to deal with them, so will the States as responsibility for program operation shifts from the Federal to the State level.

Our expectations of what constitutes good or acceptable performance by the States should reflect an understanding of these problems with which they must now grapple. At the same time, we must look to the States more directly for accountability of their discharge of this responsibility.

This completes my prepared remarks. We thank you again for the opportunity to appear and lay our accomplishments and problems before you.

## CHARTS REFERRED TO IN TESTIMONY

1. State Delegation Process
2. New York State Delegation Process
3. EPA Responsibilities That May Be Performed by States
4. Construction Grants Program: Obligations vs. Appropriations
5. Laws and Executive Orders Impacting Grants
6. Grantee Responsibilities

Regional/National Status: Active Facility Plans Over 18 Months Old

# STATE DELEGATION PROGRESS

| | PERCENT OF PROGRAM ASSUMED | |
|---|---|---|
| | FY 1980 | FY 1981 |
| STEP 1 GRANT APPL. AND AWARD | 40.2 | 59.1 |
| STEP 1 GRANT MGMT. | 31.6 | 36.8 |
| FAC. PLAN REVIEW | 20.5 | 48.2 |
| STEP 2 GRANT APPL. AND AWARD | 27.7 | 49.9 |
| STEP 2 GRANT MGMT. | 28.6 | 56.4 |
| PLANS AND SPECS. REV. | 36.4 | 70.7 |
| STEP 3 GRANT APPL. AND AWARD | 35.2 | 59.1 |
| PRE-CONSTR. MGMT. | 23.8 | 40.1 |
| STEP 3 GRANT MGMT. | 21.4 | 43.9 |
| STEP 3 COMPLETIONS AND COMPLIANCE MGMT. | 19.9 | 58.5 |
| GICS MGMT. | 11.1 | 29.7 |
| TOTAL | 24.2 | 45.6 |
| TOTAL INCL. COE ASSISTANCE | 56.0 | 68.4 |

# NEW YORK STATE DELEGATION SCHEDULE

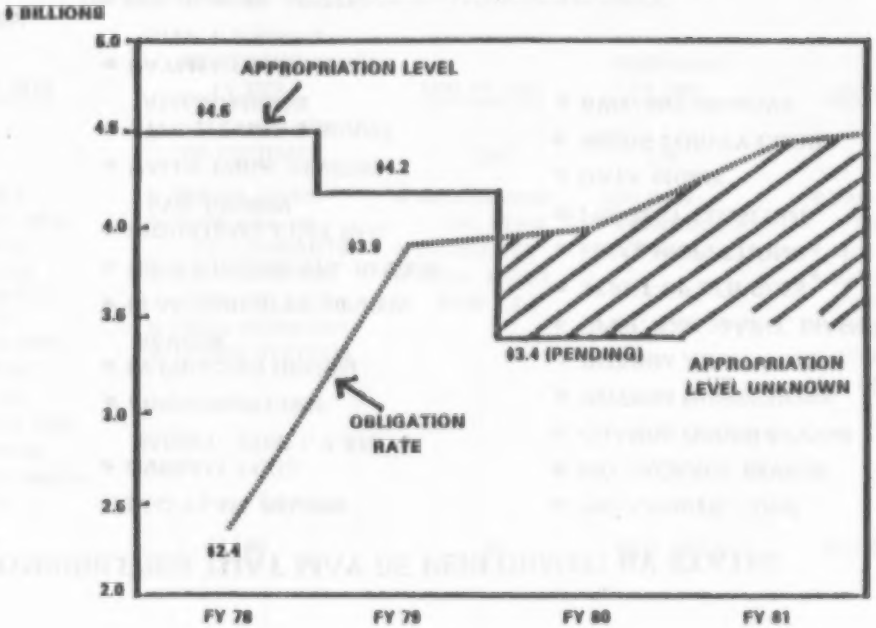
| | MID FY 1979 | BEGINNING FY 1980 | MID FY 1980 | BEGINNING FY 1981 | MID FY 1981 |
|---|---|---|---|---|---|
| STATE STAFF | 88 | 233 (PLANNED)<br>105 (ACTUAL) | 279 | 279 | 279 |
| ACTIVITIES ASSUMED | • STEP 1,2,3 APPLIC. REV.<br>• SSES & I/I<br>• IN PROCES. DESIGN REV.<br>• P&S REV.<br>• INTERIM INSP.<br>• FINAL INSP.<br>• DEVEL. OF PRIORITY LIST<br>• BID REVIEW<br>• CHANGE ORDER REVIEW. | • PRE-AP. CONF.<br>• ADM. REV. OF ST. 1,3 GRANTS<br>• A/E SUBAGREE. REV./ST. 1,2,3<br>• PROJ. CLOSEOUT<br>• UC/ICR SYSTEMS | • MID-COURSE FAC. PLAN<br>• PAYMENTS<br>• PROJ. MGMT. STEP 1,2,3 | (NO NEW FUNCTIONS) | • FAC. PLAN REV.<br>• ENV. REV.<br>• ADM. REV. OF ST. 2 AWARD<br>• AWT/AST REVIEW |
| REGIONAL STAFF ASSOCIATED WITH NEW YORK PROGRAM | 60 | 60 | 60 | NOT YET DET. | NOT YET DET. |

770

## EPA RESPONSIBILITIES THAT MAY BE PERFORMED BY STATES

- PRIORITY LIST MGMT.
- PREAPPL. CONF.
- PLAN OF STUDY
- REVIEW OF A-E SUBAGREE. STEP 1, 2 AND 3
- MBE REVIEW STEP 1, 2 AND 3
- GRANT APPL. REVIEW STEP 1, 2 AND 3
- PUBLIC PARTICIPATION
- MID-COURSE FAC. PLNG. REVIEW
- I/I ANALYSIS REVIEW
- SSES REVIEW
- ENVIR. ASSESSMENT REV.
- FINDING OF NO SIG. IMPACT
- FAC. PLAN. REVIEW
- OVERALL PROJ. MGMT. STEP 1, 2 AND 3
- PREDESIGN CONF.
- IN-PROCESS DESIGN REVIEW
- PLAN AND SPEC. REVIEW
- USER CHARGE SYS. REVIEW
- INDUSTRIAL COST REC. SYS. REVIEW
- VALUE ENGR. REVIEW
- STEP 1, 2 AND 3 GRANT AMENDMENTS
- PAYMENT PROCESSING STEP 1, 2 AND 3
- PRE-CONSTR. MGMT.
- PRE-CONSTR. CONF.
- BID PACKAGE REVIEW
- CHANGE ORDER REVIEW
- INTERIM INSPECTIONS
- INTERIM AUDIT RESOL.
- OPER. AND MAINT. MANUAL
- START-UP SERVICES
- FINAL INSPECTIONS
- PROJECT CLOSEOUT
- DATA MGMT.
- NEEDS SURVEY COORD.
- AWT/AST REVIEWS

**CONSTRUCTION GRANTS PROGRAM**
**OBLIGATIONS VS. APPROPRIATIONS**



# LAWS AND EXECUTIVE ORDERS IMPACTING GRANTS

## TOTAL: 54

MAJOR REQUIREMENTS

ARCHAEOLOGICAL AND HISTORIC PRESERVATION
CIVIL RIGHTS
CLEAN AIR*
CLEAN WATER
COASTAL ZONE MANAGEMENT*
DAVIS—BACON
ENDANGERED SPECIES*
FISH AND WILDLIFE*
FLOOD DISASTER AND FLOOD INSURANCE
NATIONAL ENVIRONMENTAL POLICY
PROTECTION OF WETLANDS
RELOCATION ASSISTANCE
RESOURCE CONSERVATION AND RECOVERY
SAFE DRINKING WATER*
WILD AND SCENIC RIVERS

*RECENT AMENDMENTS OR REGULATIONS

# GRANTEE RESPONSIBILITIES

| STEP 1<br>FACILITY PLAN | STEP 2<br>DESIGN | STEP 3<br>CONSTRUCTION |
|---|---|---|
| • ENGINEERING CONTRACTS<br>• STATE WATER QUALITY OBJECTIVES<br>• EXISTING TREATMENT WORKS<br>• I/I DOCUMENTATION<br>• COST-EFFECTIVENESS<br>• INNOVATIVE/ALTERNATIVE<br>• ENVIRONMENTAL REVIEW<br>• COSTS AND CHARGES<br>• PUBLIC PARTICIPATION<br>• RECREATIONAL OPPORTUNITIES<br>• PRETREATMENT<br>• AWT REVIEW | • STATE PRIORITY<br>• VALUE ENGINEERING<br>• PROJECT SCHEDULE<br>• STATE AND LOCAL DESIGN REQUIREMENTS<br>• LABOR STANDARDS, EQUAL OPPORTUNITY AND OTHER FEDERAL STATUTES<br>• ENVIRONMENTAL MITIGATION<br>• OPERATION AND MAINTENANCE<br>• SEWER EVALUATION<br>• USER CHARGES<br>• INDUSTRIAL COST RECOVERY | • STATE PRIORITY<br>• INTERMUNICIPAL AGREEMENTS<br>• SEWER USE ORDINANCE<br>• SEWER REHABILITATION<br>• ADVERTISE, RECEIVE AND REVIEW BIDS<br>• BUY AMERICAN<br>• CONTRACTS AWARD<br>• CHANGE ORDERS<br>• INSPECTIONS<br>• START UP SERVICES<br>• O&M MANUAL<br>• AUDIT |
| 2–4 YEARS | 1–3 YEARS | 1–4 YEARS |

FRD/AARD: 9/10/79

(1) Region IV, 825 ≤ $50K,
246 ≥ $50K (In Report)

REGIONAL/NATIONAL STATUS
ACTIVE FACILITY PLANS OVER 18 MONTHS OLD

| Reason for Delay | I | | II | | III | | IV | | V | | VI | | VII | | VIII | | IX | | X | | National | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % |
| 1. Contract Delays | | | | | | | | | | | | | | | | | | | | | | |
| Property | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Baseline | 1 | 4.5 | 3 | [illegible] | [illegible] | [illegible] | 4 | [illegible] | [illegible] | [illegible] | 1 | [illegible] | — | | 1 | [illegible] | — | | — | | [illegible] | [illegible] |
| Environmental Conditions | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Cultural/Historic Issues | 10 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Public Opposition | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Local Issues | 1 | 2.0 | [illegible] | [illegible] | [illegible] | [illegible] | — | | — | | 0 | [illegible] | — | | — | | — | | — | | — | |
| Change | 1 | 2.0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Totals | 22 | 44.0 | 13 | 34.5 | 22 | 34.5 | 8 | 8.8 | 40 | 44.0 | 16 | 14.9 | — | | 31 | 40.0 | — | | — | | [illegible] | [illegible] |
| 2. A-E Delays | | | | | | | | | | | | | | | | | | | | | | |
| Deficiencies | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Completness | 1 | 2.3 | 2 | 7.3 | 1 | 1.8 | 1 | 2.2 | [illegible] | [illegible] | 1 | [illegible] | — | | 1 | [illegible] | — | | — | | [illegible] | [illegible] |
| EIS | 1 | 2.0 | 10 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | — | | — | | — | | [illegible] | [illegible] |
| Contractual | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Staffing | 4 | [illegible] | 4 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Totals | 6 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| 3. Program Complexity | | | | | | | | | | | | | | | | | | | | | | |
| EIS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Other | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Totals | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| 4. Program Complexity (Other) | | | | | | | | | | | | | | | | | | | | | | |
| Funds | 1 | 2.2 | 4 | 2.3 | 1 | 0.4 | 3 | 3.3 | 12 | 1.8 | 14 | 3.3 | — | | 12 | 3.7 | — | | — | | [illegible] | [illegible] |
| EIS | — | | — | | 0 | 0.0 | — | | — | | — | | — | | — | | — | | — | | — | |
| Arch. Survey | — | | 1 | [illegible] | 0 | 0.0 | — | | 1 | [illegible] | 1 | [illegible] | — | | — | | — | | — | | — | |
| FOA | 1 | [illegible] | 1 | [illegible] | 0 | 0.0 | — | | [illegible] | [illegible] | — | | — | | 1 | [illegible] | — | | — | | [illegible] | [illegible] |
| FOA 78-79 | — | | [illegible] | [illegible] | [illegible] | [illegible] | 1 | [illegible] | [illegible] | [illegible] | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Totals | 2 | 4.5 | 26 | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | 13 | [illegible] | — | | — | | [illegible] | [illegible] |
| 5. State Delays | | | | | | | | | | | | | | | | | | | | | | |
| Certification | 4 | [illegible] | 1 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1 | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Resources | 1 | [illegible] | — | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1 | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Priority | — | | — | | [illegible] | [illegible] | — | | — | | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Comp Changed | — | | 1 | [illegible] | [illegible] | [illegible] | — | | — | | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Funding | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Adv Act | — | | 2 | [illegible] | — | | — | | — | | — | | — | | 1 | [illegible] | — | | — | | [illegible] | [illegible] |
| Efficient/Quick Look | 4 | [illegible] | 2 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| Totals | 21 | 44.6 | 20 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |
| 6. Regional Delays | | | | | | | | | | | | | | | | | | | | | | |
| Resources | 3 | 6.5 | 4 | [illegible] | 4 | [illegible] | — | | [illegible] | [illegible] | 1 | [illegible] | — | | 6 | [illegible] | — | | — | | [illegible] | [illegible] |
| Staffing | — | | 1 | [illegible] | 1 | [illegible] | — | | — | | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Funding | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | |
| Adv Act | 3 | [illegible] | — | | [illegible] | [illegible] | 1 | [illegible] | [illegible] | [illegible] | — | | — | | 2 | [illegible] | — | | — | | [illegible] | [illegible] |
| Totals | 6 | [illegible] | 7 | [illegible] | 11 | [illegible] | 1 | [illegible] | [illegible] | [illegible] | 1 | [illegible] | — | | 8 | [illegible] | — | | — | | [illegible] | [illegible] |
| 7. National Delays | | | | | | | | | | | | | | | | | | | | | | |
| Resources/Policy | — | | — | | — | | — | | 4 | [illegible] | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Funding | — | | — | | 10 | [illegible] | — | | 7 | [illegible] | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Adv | — | | — | | 10 | [illegible] | — | | 11 | [illegible] | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| Totals | — | | — | | 10 | [illegible] | — | | 11 | [illegible] | — | | — | | — | | — | | — | | [illegible] | [illegible] |
| 8. Administrative (EIS, PL 83-566, Funded PL's not closed) | 10 | 44.0 | 30 | 34.6 | 21 | 43.3 | 12 | 5.5 | 22 | 8.7 | 10 | 7.8 | — | | 16 | [illegible] | — | | — | | [illegible] | [illegible] |
| 9. Other | 12 | 8.0 | 42 | 24.6 | 22 | 8.0 | 41 | [illegible] | 12 | 4.5 | 22 | 12.8 | — | | 14 | 12.8 | — | | — | | [illegible] | [illegible] |
| Total | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | — | | [illegible] | [illegible] | — | | — | | [illegible] | [illegible] |

## OUTLINE OF SUPPLEMENT TO TESTIMONY

I. Funding

II. Remaining Needs

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IX. Water Quality Accomplishments

TESTIMONY FOR THE RECORD

HEARINGS BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND REVIEW, HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, NOVEMBER 1, 1979.

This information supplements the oral statement of Douglas Costle, Administrator of the U.S. Environmental Protection Agency, presented at the hearings on EPA's grant program for construction of municipal wastewater treatment facilities. The hearings focus on the progress and management of the grants program.

This written statement contains nine sections dealing with major issues and areas detailing the progress and performance of the construction grants program.

## I. FUNDING

The following tabulations summarize past program authorizations, allocations, obligations and outlays since the beginning of Fiscal Year 1972. Also shown are projected allocations and outlays for Fiscal Years 1980 and 1981.

FUNDING STATUS
CONSTRUCTION GRANTS PROGRAM
($ Millions)

| Fiscal Year | Authorization | Allocation | Obligations | Outlays |
|---|---|---|---|---|
| 1972 | 2,000 | 2,000 | 873 | 413 |
| 1973 | 7,000(1) | 3,900(2) | 2,991 | 680 |
| 1974 | 6,600(3) | 3,000 | 2,634 | 1,560 |
| 1975 | 7,000 | 4,000 | 4,149 | 1,940 |
| 1976 | - | 9,000 | 4,181 | 2,429 |
| TRANS | - | - | 672 | 918 |
| 1977 | 1,700(4) | 1,980(5) | 7,141 | 3,545 |
| 1978 | 4,500 | 4,500 | 2,386 | 3,194 |
| 1979 | 5,000 | 4,200 | 3,950* | 3,750* |
| 1980 | 5,000 | 3,400** | 3,970*** | 4,100* |
| 1981 | 5,000 | 4,500** | 4,400*** | 4,100** |

(1) Includes $2.0 billion for reimbursable projects.
(2) Includes $1.9 billion for reimbursable projects.
(3) Includes $600 million for reimbursable projects.
(4) Includes $1.0 billion authorized later in the Clean Water Act.
(5) Includes $480 million Talmadge/Nunn funds, $1.0 billion FY 1977 funds, and $500 million reimbursable funds.

* Approximate figures pending final end-of-year verification.
** Projections. Assumes $4.5 billion will be appropriated in FY 1981.
*** We are currently analyzing estimates from our Regional Offices indicating that obligations in FY 80 and 81 will be higher than indicated, over the two year FY 1980-81 period.

Carryover funds are listed below:
($ millions)

| FY | End of Year Carryover |
|---|---|
| 78 | 3,600 |
| 79 | 3,900 |
| 80 | 3,300 |
| 81 | 3,400* |

*Assumes $4.5 billion appropriation in FY 1981.

The following table shows the number and dollar amount of projects awarded under P.L. 92-500 and subsequent amendments that are currently active:

| | Number | $Millions |
|---|---|---|
| Step 1 | 5,348 | $ 607 |
| Step 2 | 1,691 | 468 |
| Step 3 | 3,574 | 18,730 |
| Step 4 | 307 | 428 |
| Total | 10,920 | $20,233 |

The total number and costs of PL 84-660 projects which have not been closed out will be furnished.

Since the enactment of P.L. 92-500 in 1972, EPA has awarded $24.2 billion in grants to approximately 17,000 projects throughout the country for the planning, design, and construction of municipal wastewater facilities. Of the 14,850 treatment facilities identified in our 1978 survey of municipal wastewater needs as operational in 1978 10,480 or 71 percent have already achieved secondary or higher levels of treatment. Many of these treatment facilities must be upgraded and expanded and additional facilities will be required to meet estimated year 2000 needs. Much of this work is in the various stages of planning, design, and construction.

The enactment of the 1977 Amendments tended to slow down the pace of grant awards as the program was reoriented to accommodate new legislative requirements. Whereas prior to the new amendments, obligation levels exceeded $4 billion per year for the previous three years, in FY 1978 net program obligations dropped to $2.4 billion. However, we have already seen an increase in program activity as new law requirements begin to be implemented. In FY 1979 we

63-935 O—80——50

obligated approximately $3.9 billion and that figure should be exceeded this year. As more and more States assume primary management responsibilities for the program under Section 205(g) of the Act, we will be capable of obligating $4.5-5.0 billion or more per year starting in FY 1981.

In spite of the temporary slowdown of the program as a result of the implementation of the new amendments, the program continues to grow. In FY 1979 we made more program outlays ($3.7 billion) and funded more jobs in the private sector (175,000 jobs) than ever before in the program. In addition, we now have more projects (11,000) in various stages of planning, design, and construction than ever before. We expect these various indicators of program activity to grow even more over the next two to three years.

Distribution of grant awards and amounts among various community sizes is shown by the following table. Communities under 25,000 persons have received about 78 percent of the total number of grant awards and 33 percent of the total grant amounts since the enactment of P.L. 92-500.

Public Law 92-500
($ in millions)

| Community Size | Grant Awards Number | Grant Awards % of Total | $M | Grant Awards % of Total |
|---|---|---|---|---|
| Under 3,500 | 8,136 | 49 | 1,792 | 9 |
| 3,500 - 5,000 | 1,016 | 6 | 664 | 3 |
| 5,001 - 10,000 | 1,872 | 11 | 557 | 7 |
| 10,001 - 25,000 | 2,017 | 12 | 2,900 | 14 |
| 25,001 - 50,000 | 1,129 | 7 | 2,090 | 10 |
| 50,001 - 125,000 | 1,004 | 6 | 3,484 | 16 |
| 125,001 - 250,000 | 464 | 3 | 1,697 | 8 |
| 250,001 - 500,000 | 271 | 2 | 1,435 | 6 |
| 500,001 and Over | 676 | 4 | 5,667 | 27 |
| | 16,585 | 100 | 21,287 | 100 |

(As of August 6, 1979 - ESTIMATED AND DOES NOT INCLUDE INCREASES TO OLD LAW PROJECTS)

## II. REMAINING NEEDS

The total remaining Category I-V needs are $106.1 billion, of which the Federal share is approximately $79.7 billion (1978 dollars). Adjusting for the available appropriation lowers the Federal share to $70.2 billion. We estimate that this amount can be further reduced, administratively, through such measures as the stringent application of cost-effectiveness guidelines and AWT reviews to roughly $53.2 billion. To keep the program focused on priority needs, EPA has also recommended the elimination of eligibility for Category IIIB (Major Sewer Rehabilitation) and IVA (New Collectors). This legislative action would further reduce remaining needs to $42 billion (1979 dollars) or the rough equivalent of the remaining needs in the President's 1977 $45 billion, ten-year program.

Understandably, these funds are concentrated in the Nation's large urban areas. Of the 263 Standard Metropolitan Statistical Areas (SMSA), 106 have treatment needs to achieve secondary levels and levels more stringent than secondary (Categories I and II in the Needs Survey) in excess if $50 million. Total needs for these SMSAs just to achieve secondary are approximately $15.5 billion. Some or many of the facilities within 73 of the 106 SMSAs lack the capability of providing secondary treatment to all of their respective flows. The remaining 33 have facilities with the capability of achieving secondary, although many of these facilities are not doing so because of hydraulic and organic overloading, and operation and maintenance problems.

The attached table lists the 106 SMSAs by EPA Regions. Category I and II needs are $21.9 billion, approximately 61 percent of the National total.

EPA is presently compiling data from the FY 1980 priority lists to compare proposed projects in these SMSAs with their reported treatment needs over the next five years. The results should roughly indicate the demand for construction dollars represented by high priority projects and the progress we can expect in major urban areas in meeting BPWTT through FY 1984.

The impact of inflation on engineering and construction costs is severe. An annual inflation increment consistently in excess of available funds means that needs will never be met. The inflationary increment will entirely consume the appropriation without any net reduction in needs.

Current inflation and a time horizon should be critical factors considered in the determination of annual obligation authority. For example, it would require 12 years to complete the $42 billion program at 5 percent inflation and a constant annual appropriation of $5 billion. At an infla- tion rate of 10 percent, the time to completion increases to 20 years. Sixteen years are required to complete the $53.2 billion program under 5 percent inflation and the same level of funding. At a 10 percent rate, the $253.2 billion program would never be completed.

6

TREATMENT [redacted] - SMSA'S

| STATE | SMSA | TOTAL I & II's ($ million) |
|---|---|---|
| **Region I** | | |
| MA | Boston | 690 |
| NH | Manchester | 192 |
| CT | New Haven | 162 |
| CT | Hartford | 116 |
| MA | New Bedford | 102 |
| MA | Worcester | 87 |
| **Region II** | | |
| NY | New York | 2,106 |
| NJ | Newark | 635 |
| NY | Nassau | 335 |
| NJ | Jersey City | 141 |
| NY | Syracuse | 126 |
| NJ | Trenton | 86 |
| NY | Rochester | 88 |
| NY | Poughkeepsie | 64 |
| NJ | Passaic | 62 |
| NJ | Long Beach | 50 |
| NY | Utica | 50 |
| **Region III** | | |
| PA | Philadelphia | 905 |
| MD | Baltimore | 589 |
| DC | Washington, D.C. | 284 |
| VA | Norfolk | 205 |
| PA | Scranton | 146 |
| PA | Pittsburgh | 145 |
| PA | Allentown | 105 |
| PA | Lancaster | 88 |
| VA | Richmond | 75 |
| DE | Wilmington | 73 |
| PA | York | 69 |
| PA | Erie | 57 |
| **Region IV** | | |
| FL | Tampa-St. Pete | 399 |
| GA | Atlanta | 300 |
| FL | Orlando | 182 |
| FL | Jacksonville | 162 |
| TN | Memphis | 152 |
| KY | Louisville | 131 |
| NC | Greensboro | 129 |
| FL | Miami | 123 |
| FL | Ft. Lauderdale | 122 |
| FL | Melbourne | 93 |
| FL | Daytona Beach | 86 |
| FL | Ft. Myers | 82 |
| **Region IV (Continued)** | | |
| GA | Macon | 80 |
| KY | Lexington | 77 |
| MS | Jackson | 70 |
| TN | Chattanooga | 70 |
| FL | Pensacola | 62 |
| FL | Sarasota | 62 |
| TN | Nashville | 56 |
| NC | Charlotte | 53 |
| TN | Knoxville | 52 |
| FL | Lakeland | 51 |
| **Region V** | | |
| IL | Chicago | 926 |
| MI | Detroit | 588 |
| MN | Minneapolis | 448 |
| WI | Milwaukee | 329 |
| OH | Columbus | 243 |
| OH | Dayton | 209 |
| OH | Cleveland | 194 |
| OH | Akron | 161 |
| IN | Indianapolis | 156 |
| OH | Youngstown | 142 |
| IN | Gary | 104 |
| OH | Cincinnati | 93 |
| MI | Kalamazoo | 80 |
| OH | Lorain | 66 |
| OH | Toledo | 65 |
| OH | Canton | 55 |
| **Region VI** | | |
| TX | Houston | 383 |
| TX | Dallas-Ft. Worth | 215 |
| OK | Oklahoma City | 113 |
| TX | San Antonio | 92 |
| LA | Baton Rouge | 80 |
| TX | Waco | 53 |
| OK | Tulsa | 50 |
| LA | New Orleans | 190 |
| **Region VII** | | |
| MO | St. Louis | 423 |
| MO | Kansas City | 398 |
| NE | Omaha | 104 |
| IA | Des Moines | 76 |
| **Region VIII** | | |
| CO | Denver | 319 |
| UT | Salt Lake City | 137 |
| SD | Sioux Falls | 52 |

TREATMENT [redacted] - SMSA'S (Continued)

| STATE | SMSA | TOTAL I & II's ($ million) | STATE | SMSA | TOTAL I & II's ($ million) |
|---|---|---|---|---|---|
| Region IX | | | Region X | | |
| CA | Los Angeles | 831 | WA | Seattle | 403 |
| CA | San Francisco | 745 | AK | Anchorage | 177 |
| CA | San Diego | 424 | WA | Tacoma | 139 |
| CA | Anaheim | 314 | OR | Portland | 105 |
| CA | San Bernardino | 268 | OR | Eugene | 85 |
| HI | Honolulu | 198 | OR | Salem | 50 |
| CA | Sacramento | 179 | | | |
| CA | Vallejo | 141 | | | |
| CA | Modesto | 113 | | | |
| CA | San Jose | 111 | | | |
| CA | Monterey | 99 | | | |
| CA | Santa Rosa | 94 | | | |
| CA | Santa Cruz | 90 | | | |
| CA | Ventura | 82 | | | |
| NV | Las Vegas | 81 | | | |
| AZ | Phoenix | 59 | | | |
| CA | Fresno | 56 | | | |
| NV | Reno | 56 | | | |

## III. MEASURES TO EXPEDITE THE PROGRAM

### A. Overview

#### Introduction

The momentum of the Construction Grants Program slowed markedly following enactment of the Clean Water Act and the issuance of rules, regulations and guidance to implement its new initiatives. The program has recovered quickly, but as a direct consequence over $3.9 billion in unobligated funds remains. At present, there are over 11,000 active projects representing approximately $20 billion in awarded grants. Of these, 5,275 are Step 1 and 1,639 are Step 2 projects. The rough construction cost of planning and design projects in the pipeline exceeds $28 billion (1979 dollars).

We believe the following Congressional and administrative actions are critical to reducing the current backlog of projects:

#### Congressional

1. Minimize legal changes to provide stability.

2. Provide a sufficient, sustained level of funding.

3. Eliminate requirement for Headquarters review of advanced treatment projects.

#### Administrative

1. EPA has increased resources brought to bear on management through delegation of key program responsibilities to the States and agreement with the Corps of Engineers.

2. EPA issued a comprehensive program management strategy designed to ensure regional performance in critical activities.

3. EPA issued a municipal strategy and policy to integrate the permit, grant, and enforcement programs and to ensure these three programs reinforce each other.

4. EPA is improving the grants information data base and tracking procedures. Special attention is being given to closely monitoring progress of large city projects.

5. EPA is reviewing all program guidance to eliminate unnecessary requirements and consolidate new materials in a revised "Handbook of Procedures."

6. EPA is reducing Step 1 and 2 project backlogs by:

   - increasing the resources devoted to management of these projects by delegating major management responsibilities to the States

   - intensifying follow-up and scheduling meetings with consulting firms

   - increasing emphasis on improving consultant performance

   - holding numerous seminars on facility planning and alternative technologies

7. EPA is reducing Step 3 project backlogs and completion by:

   - controlling preconstruction lags

   - assigning Corps of Engineers personnel to change order reviews, certification of payment requests, contract scheduling, biddability/ constructibility review and construction project closeouts and completions

   - monitoring audit resolution procedures to facilitate project closeouts

8. In the face of reduced allocations, EPA is reviewing mechanisms to fund large step 3 construction projects through segmenting and separate notice-to-proceed contracting methods.

9. EPA established qualification procedures under which major items of equipment could be prequalified prior to bidding, thereby permitting the consulting engineer and grantee to take a more active role in selecting equipment items necessary for successful plant operation and reducing protests and delays during bidding.

10. EPA will restrict the application of retroactive requirements and phase-in all other new requirements.

B. Examples of Difficulties Delaying Step 1 Projects

1. Examples of resistance or refusal to cooperate with policies, procedures or decisions:

a. Consultant with $70 million project strongly desires to do own value engineering (VE). Regional policy does not permit this. VE team finds $17 million in construction can be eliminated. Consultant refuses to modify the design so the grantee fired the engineer. Several long delays resulted during the process.

b. Consultant believed he carried out all facility planning requirements. Municipality, Region and State said more work concerning land treatment alternative had to be done. Engineer disagreed and delayed for substantial period before he did it.

c. Consultant did not believe in some types of wastewater management and refused to consider them even when possibly cost-effective. Delay occurred until consultant accepted request to proceed.

d. Two or more consultants were involved and professional and financial differences conflicted.

2. Examples of difficulties between grantee and consultant:

a. Only survey crew visited the site. The designers in the office 300 miles away, though requested by the grantee to consider alternatives, only gave a cursory effort. After considerable delays, including visit of EPA Headquarters team, grantee obtained responsive new consultant.

b. Consultant solution to pollution problem was too sophisticated and too expensive for grantee. Grantee tried to get him to modify concept design but consultant refused until paid more money. Grantee stated no more funds available.

c. Consultant arrived at too expensive a project over objections of practical grantee. Grantee objected but draft facility plan still contained unacceptable result. Visit of EPA Headquarters "expert" again required.

d. Consultant conceived unworkable finanical structure for local share costs and too expensive and extensive a project. Grantee refused to proceed with project until problem alleviated. Visit of EPA team solved problem.

e. Other projects have been delayed because of disagreements between the grantee and his consultant.

C. Retroactive Program Requirements and Step 1 Project Delays

EPA is implementing measures to ensure stability in the construction grants program. Among these measures is a commitment not to apply new program requirements to projects having Step 3 grant assistance where construction is already underway or likely to be underway within six months of the grant award. The Agency has also pledged to avoid applying new requirements retroactively to projects in Step 1 or Step 2 funding unless they are essential to implement new laws or to correct serious deficiencies in the program. The attached paper discusses in more detail why applying new requirements to ongoing projects is essential in some cases and is of great benefit to many of those projects.

## RETROACTIVE PROGRAM REQUIREMENTS AND STEP 1 PROJECT DELAYS

Federal, State and local interests all require a minimum level of quality in facility planning. Quality is the satisfactory assurance that the recommended alternative represents the most cost-effective means to meet the needs of municipalities in resolving present public health and water pollution problems. These needs should be met in a manner consistent with legitimate environmental concerns and the capability of users to pay the local share.

Periodically, EPA has issued additional program requirements to clarify and amplify the Agency's position on controversial topics, such as the eligibility of new collectors. Enactment of the Clean Water Act also necessitated revised regulations and issuance of additional program requirements. Only a small percentage of these requirements have been retroactive in application.

Considerable selectivity is exercised as to which requirements should apply to on-going projects and which should be implemented through a phasing-in process. If a facility plan is technically sound to begin with, "retroactivity" certainly does not entail beginning anew, and the plan should not suffer any undue delay. Additional program requirements often originate from problems with interpretation and practice in the field manifested in serious deficiencies in facility plans. To give an example, our program regulations issued in 1974 required the evaluation of land treatment and other alternative technologies in the facility planning process. We found, however, that plans prepared subsequently often concluded that alternative technologies were inappropriate without careful consideration. We, therefore, issued a policy in October, 1977, re-emphasizing the requirement. Congress was also concerned about the shortcomings of facility plans and included major provisions to promote the use of alternative technologies in the Clean Water Act of 1977.

The point should also be stressed that there have been many approvals of facility plans without significant slippages in their schedules. The adjustment period following passage of the Clean Water Act for facilities plans of high quality was a brief one. Ample evidence of the program's increasing momentum is seen in the 9 percent increase in FY 1979 obligations over earlier projections. Over 449 facility plans have been completed so far this fiscal year.

Primarily because of avoidable deficiencies in planning and design, re-examination of ongoing projects in the light of current program requirements can yield major benefits. For example:

1. South Pymatuning, PA The original project proposed sewering an entire community to convey wastewater to a regional facility, at a total cost of $4 million with estimated annual user charges ranging from $170 to $320 and many front foot assessments exceeding $70,000 each. The cost-effectiveness, financial, and alternative analyses were unsatisfactory. The proposed alternative was too expensive and did not address the actual needs of the community. EPA's recommendations included reducing the project's scope, revising design plans and specifications, and developing other local financing arrangements. As a result, the new project, in sewering only areas where problems existed, lowered annual charges to $177 per dwelling, eliminated the front foot assessment, and saved $2.2 million.

2. Lake Chatauqua, NY In response to a request from a citizen's group questioning a project already under partial construction, EPA re-examined the facility plan and design. It was determined that the plan failed to adequately evaluate other options besides conventional gravity sewers which in this situation were very costly. The consultant revised the plans to add pressure and vacuum sewers and shallow force mains in several areas and to delete some service areas altogether, at a total savings of $19 million. The lack of sufficient technical and cost analysis of alternative systems was the principal cause of this project's problem, as it has been with many others.

The overall problem of quality control in facility planning is an integral factor in the current large backlog of Step 1 projects. We readily agree that this situation is highly undesirable and have taken recent steps to determine on a project-by-project basis the major reasons for planning delays. We have now completed a classification of active Step 1 projects over 18 months old in 7 out of 10 regions. In addition to delays due to EPA Regional reviews and Headquarters requirements, we found that consulting firms are a significant part of the problem by their taking on more projects than they have staff to handle expeditiously; inaction in completing projects; and lack of familiarity with fundamental program requirements. For example, in Oklahoma, 63 percent of the Step 1 projects over 18 months old have been held up principally because of overloading and inaction on the part of consulting engineers.

We found also that delays at the grantee level were significant. Major causes included the failure to push projects, conflicts over service agreements, and problems with consultants. Another important delaying factor is the time required to complete infiltration/inflow analyses and sewer system evaluation surveys.

Supplementing the results of this analysis is an ongoing extensive quality review of completed facility plans. Again, preliminary indications are that many plans have serious deficiencies. Of the 69 reviewed to date, one-third or more have significant omissions and weaknesses in the following subject areas crucial to the quality of the final product:

1. Reserve Capacity: Excessive, well above the conveyance and/or treatment capacity required to meet needs.

2. Assessment of Environmental Effects: Incomplete in detail and coverage, both for the selected plan and alternatives.

3. Cost-Effectiveness Analysis: Incomplete breakdown of costs and insufficient discussion of alternatives.

4. Financial Analysis: Incomplete assessment of impacts on local community.

Several administrative actions are underway that should help reduce the backlog of projects:

1. Water Division Directors have been instructed to intensify follow-up and scheduling with firms having project backlogs, including meetings with the principals of those firms.

2. In those situations where overloading or uncooperativeness persists on the part of the consultant, we will recommend corrective steps to the grantee. We will also work with professional engineering organizations to press for improved performance from consultants.

3. The progress and problems of Step 1 and 2 projects will be monitored much more closely through improvements in the grants information data base and tracking procedures.

4. Our Step 1 analysis revealed that sewer system evaluation surveys often add 1-3 years to the completion of engineering work. We are examining means to expedite this part of the process.

5. We are holding numerous seminars on facility planning and alternative technologies across the country.

6. We have issued a National Municipal Policy and Strategy requiring that the permit program give greater emphasis to ensuring that municipalities without adequate treatment facilities utilize available grant funds expeditiously.

7. We are reviewing all our program guidance carefully to eliminate unnecessary and out-of-date requirements and consolidate new materials in a revised version of our "Handbook of Procedures."

## IV. FUTURE DIRECTIONS

As the construction grants program results in more projects going on-line and becoming active dischargers, the Agency is aware that it must be ready to ensure that water quality goals are met through the enforcement of permits for these new dischargers and through better operations and maintenance practices. The following two sections outline the Agency's approach to these issues.

A. Summary of the Agency's current National Municipal Policy and Strategy and how available and anticipated construction grant dollars and statutory goals and deadlines are to be reconciled with currently estimated needs.

EPA has developed a National Municipal Policy and Strategy (NMPS) for more effectively managing municipal compliance with the Clean Water Act. The goal is to integrate permits, enforcement, and construction grant activities by:

- issuing to qualified POTW's, extensions with enforceable compliance schedules based on grant funding, in the form of permits and administrative orders;
- coordinating with States to develop State Project Priority Lists which assure that grant funding is allocated to projects necessary to meet the enforceable requirements of the Act before funding is allocated to other projects, to the extent authorized by law; and
- laying the foundation to coordinate permanently grants, permits, and enforcement operating practices with the aim of streamlining compliance by municipalities while simultaneously removing impediments to enforcement actions, if needed.

The NMPS sets forth a process for determining whether a permittee will be eligible for a permit extension under section 301(i)(1), be issued an administrative order under section 309(a)(5)(A) or be subject to referral for judicial action. The NMPS establishes procedures and priorities for administering each of these methods to achieve POTW compliance.

The priority ranking for issuing extensions and administrative orders is as follows:

1. Active grants with pretreatment requirements.

2. Grantees on fundable (one year) portion of project priority list (grants not yet awarded).

3. Active major grantees (funded from previous project priority list).

4. Active minor grantees (funded previous project priority list).

5. Unfunded.

Within each category of projects, construction (Step 3) receives priority over design (Step 2) which in turn has priority over facility planning (Step 1).

A Municipal Referral Priority System will identify and set priorities for those projects referred to the Department of Justice by EPA and to State Attorneys General by the State. These referrals involve projects where other enforcement actions were unsuccessful or inappropriate.

The Municipal Management System will be the mechanism through which EPA Regional and State Enforcement and Grants staffs develop formal operating procedures to support preparation of compliance schedules and respond to instances of non-compliance.

B. Operation and Maintenance (O&M)

EPA O&M inspection data since 1973 have persistently indicated that about 50% of the Nation's municipal treatment plants which are designed to meet secondary treatment requirements do not do so. About 25% of the Nation's treatment plants have severe and/or chronic O&M problems. A number of these have reportedly caused receiving water quality problems. Most of these are older (pre-P.L. 92-500) publicly-owned treatment plants. P.L. 92-500 plants show significant improvement over previously existing plants. Of 100 new-law plants inspected during 1978, only 20 were violating effluent limits at all. While O&M problems continue to exist, the more recently constructed plants do appear to be showing significant improvements in O&M over older facilities. Although we have necessary authorities under the Clean Water Act, it is clear to EPA that an increased commitment will be required at all governmental levels to correct the major causes of O&M problems and, thereby, improve performance levels nationally. We intend to attack the problem through more careful scrutiny and integration of operational considerations throughout the construction grant review process to help assure a fully operable facility upon delivery to the grantee.

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Treatment plant O&M costs are currently in the range of $5-$15 per capita per year. In relation to other municipal costs, we do not feel these costs should be a burden to communities. However, O&M costs are escalating rapidly due to inflation in the cost of energy, chemicals, manpower and the increasing complexity of new plants required to meet Clean Water Act objectives. Also, we have reports of some excessively high O&M costs for individual plants.

The current program in Municipal Operations within the Municipal Construction Division places strong emphasis for assuring effective wastewater treatment plant performance on the Agency's National Municipal Policy and Strategy. The program assumes that communities need to know what their waste treatment goals are and, through greater use of the private sector, need to identify any inhibiting problems. Solutions to these problems should be provided in their long-range plan to comply with their discharge water quality control objectives. These plans should focus also on attainable short-term objectives such as accomplishments through improving overall facility management. The private sector should be looked to for this type of assistance rather than State/Federal assistance. Through coordination between the construction grant program and the enforcement/permit compliance program(s), special effort will be given to identifying plants that are upgradable short of major construction and to being sure that appropriate enforcement actions are taken to realize permit compliance.

EPA is now using a series of demonstration grants to act as a catalyst to attract more private firms into the business of upgrading plant services. In cases where it is not likely that the local community will be able to operate their plant at required levels, we are recommending that they place their plant under contract to qualified private sources. This is a growing trend which we strongly support.

The program also will ensure that facilities are planned and built that can be effectively operated at their design level of efficiency by the local community. In Step 1, we stress that the facility plan cover an in-depth evaluation of the present and projected raw wastes to be treated and upon which the overall plant design is predicated. In Step 2, we call for an "operability" review, by qualified sources, of the plans and specifications. In Step 3 we will be closely tracking the project "plan-of-operation" to be sure that all necessary measures are taken in a time frame that will assure that a qualified plant staff will be present during start-up and beyond. Good operations call for good management and we stress that greater emphasis be placed on better overall facility management.

## V. PROGRESS IN IMPLEMENTING THE CLEAN WATER ACT AMENDMENTS OF 1977

The Clean Water Act of 1977 added over 100 amendments to PL 92-500; over 30 impacted the construction grants program. The following sections discuss the progress in implementing the amendments affecting the grants program.

### A. Innovative and Alternative Technology Program

#### Implementation

An intensive effort has been made to disseminate information and provide assistance on the innovative and alternative technology (I/A) program. Included in these efforts have been the following:

- By 12/79, three circuits of the country will have been completed (more than 30 meetings and seminars) to present I/A information to the Regions, States, municipalities and engineers.

- A full-time, 5-person I/A technical support group has been established at the ORD Municipal Environmental Research laboratory in Cincinnati.

- An I/A Technology Assessment Manual was compiled in less than 6 months and more than 10,000 copies distributed to date.

- A quarterly report is prepared to serve a clearinghouse function by reporting the program status and providing descriptions of approved projects. The second edition of the quarterly report was published 10/79.

#### Results to Date

As of October, 1979, grants had been awarded for 20 innovative technology projects and 129 alternative technology projects. The innovative technology projects obligated $1.3 million of the setaside funds, which is 6% of the FY79 set-aside of $21 million. The alternative technology projects accounted for $11.1 million of the set-aside funds (18% of the FY79 set-aside of $63 million).

An additional 18 projects had been approved for innovative technology and 89 projects for alternative. When these projects go to construction (i.e., a Step 3 grant is

awarded) they will use an additional $9.8 million and $21.1 of the innovative and alternative technology set-asides, respectively. Thus, the total set-aside funds associated with the innovative and alternative technology projects which have been approved to date is $43.4 million. The $43.4 million of set-aside funds represents only 10% of the cost of the innovative and alternative technology portions of these projects. The total value of the innovative and alternative technology grants is ten times this amount or $434 million.

Finally, more than 335 projects (51 innovative and 285 alternative) are presently under review within EPA and the States.

The following is an indication of the technologies being incorporated in the I/A projects reviewed to date.

- co-incineration of sludge and solid waste with extensive heat recovery
- water hyacinths production followed by digestion for methane gas recovery
- active and passive solar collection for digester and space heating
- powdered activated carbon with regeneration for treating high strength wastewater in single biological stage
- unique sand filter for small cluster treatment system
- ultra-violet disinfection
- hydraulically assisted rotating biological contactor to reduce energy requirements

Analysis of the Program Results

With respect to the types of technologies being considered, the projects approved to date have, for the most part, clearly contributed to achieving the objectives of the law. It appears, however, that many proposals from engineers and municipalities are directed toward enhancing the grant rather than true innovation. We have made it clear to the Regions and States and in our discussions with the public that such projects are not acceptable and will be rejected during the review process unless they meet the criteria for innovative or alternative technologies.

With respect to obligation of the set-asides, it appears that there will be more than enough projects to spend the total of the three years' set-asides. The problem is that it takes up to two years or more to plan

projects and a substantial portion of the FY79 (and possibly FY80) set-asides will not be obligated within the required two-year period. At the same time, most of these projects which are presently being planned and designed will reach Step 3 in FY81, just at the time when the program is presently scheduled to end. It is almost certain that there will not be sufficient FY81 set-aside funds to cover these projects when they are ready for construction.

B. Small Wastewater Systems

EPA has an aggressive program to encourage small wastewater treatment systems. Both publicly and privately owned small systems are eligible for 85% grants. 75% comes from the 4% small community set-aside and the 10% grant incentive comes from the 2% Innovative/Alternative technology set-aside. As of September 30, 1979, approximately 30 rural small communities have been awarded 85% grants involving alternative technology systems. Nearly $10 million of the total FY79 4% set-aside of $85 million has now been obligated. Data obtained from the state priority lists shows that over 100 additional projects will use the 4% set-aside. The time lag between the start of Step 1 planning and completion of Step 2 design adversely affects the obligation of 4% set-aside funds for construction of small community systems.

The Agency has taken the following actions to encourage consideration of small systems.

- Conducted 20 design seminars, "Wastewater Treatment Systems for Small Communities," to date. Five more scheduled in FY80.

- Innovative/Alternative systems have been emphasized versus conventional systems to reduce high capital, O&M and user costs. Examples of capital cost savings:

  Priest Lake, Idaho -
  Conventional - $ 6,000,000
  Alternative - $ 500,000

  Steuben Lakes, Indiana -
  Conventional - $23,200,000
  Alternative - $ 8,000,000

  Crystal Lake, Michigan -
  Conventional - $18,000,000
  Alternative - $ 7,000,000

  Green Lake, Minnesota -
  Conventional - $ 8,400,000
  Alternative - $ 3,500,000

- Provided on-site technical assistance to numerous small wastewater systems underway.

- Trained Regional coordinators to administer, foster and oversee alternative projects for small communities.

C. Step 2 & 3 Grants

Approximately 10% of the total Step 2 and Step 3 grant awards last year were awarded for combination Step 2 and Step 3 projects. The use of this administrative procedure for these smaller projects eliminates the need for making an additional grant at the time the project is ready to go to construction. The advantages of this procedure include:

1. Elimination of applying for and processing a Step 3 construction grant.

2. Reducing the resources needed to administer the program by a small amount.

3. Opportunity for an overall time savings in the design and construction of projects for smaller communities.

4. Ability of smaller communities to complete local financing arrangements with the earlier receipt of the total Federal grant.

D. State Delegation Agreements

Attached is a chart giving the status of State delegation agreements. As of October 1, 1979, 30 have been executed; three more are expected to be signed by December 31, nine more by September 30, 1980; 14 remain questionable.

States contemplating 205(g) agreements have either completed or essentially completed State-EPA agreements. (In FY80, State-EPA agreements must be completed before a delegation agreement is executed.) All agreements which have been executed (except for California) call for a phasing in of delegated functions — i.e., States assume responsibility for certain functions at the outset and, over a period of time ranging from about 2 to 4 or more years, additional functions are added.

Status of 205(g) State Delegation Agreements 2a

10/1/79

| | Agreements Signed (Date) | Agreements Expected To Be Signed By 12/31/79 | Agreements Expected To Be Signed By 9/30/80 | Questionable |
|---|---|---|---|---|
| TOTALS | | | | |
| ZONE I | | | | |
| Connecticut | 4/1/79 | | | |
| Maine | 4/16/79 | | | |
| Massachusetts | 9/21/79 | | | |
| New Hampshire | 10/8/78 | | | |
| Rhode Island | | | | |
| Vermont | 8/11/79 | | | X |
| ZONE II | | | | |
| New Jersey | 9/26/79 | | | |
| New York | 12/26/78 | | | |
| Puerto Rico | | | X | |
| Virgin Islands | | | | X |
| ZONE III | | | | |
| Delaware | | | X | |
| Maryland | 3/10/79 | | | |
| Pennsylvania | 7/2/79 | | | |
| Virginia | | X | | |
| West Virginia | 2/11/79 | | | |
| Dist. of Columbia | | | | X |
| ZONE IV | | | | |
| Alabama | | | | X |
| Florida | | | X | |
| Georgia | 10/26/78 | | | |
| Kentucky | | | | X |
| Mississippi | | X | | |
| North Carolina | | X | | |
| South Carolina | 3/15/79 | | | |
| Tennessee | | | | X |
| ZONE V | | | | |
| Illinois | 8/3/79 | | | |
| Indiana | | | | X |
| Michigan | 3/30/79 | | | |
| Minnesota | 3/16/79 | | | |
| Ohio | | | X | |
| Wisconsin | 10/2/78 | | | |
| ZONE VI | | | | |
| Arkansas | | | X | |
| Louisiana | | | | X |
| New Mexico | | X | | |
| Oklahoma | | X | | |
| Texas | 9/8/78 | | | |
| ZONE VII | | | | |
| Iowa | | | | X |
| Kansas | | | | X |
| Missouri | 5/10/79 | | | |
| Nebraska | 7/31/79 | | | |
| ZONE VIII | | | | |
| Colorado | 9/27/79 | | | |
| Montana | 7/9/79 | | | |
| North Dakota | 8/17/79 | | | |
| South Dakota | 4/6/79 | | | |
| Utah | 9/27/79 | | | |
| Wyoming | 8/21/79 | | | |
| ZONE IX | | | | |
| Arizona | 3/29/79 | | | |
| California | 8/17/79 | | | |
| Guam | | | | X |
| Hawaii | | | X | |
| American Samoa | | | | X |
| N. Mari. Is. of Pac. Islds. | | | | X |
| Nev. | | | | X |
| ZONE X | | | | |
| Alaska | 12/7/78 | | | |
| Idaho | 3/5/79 | | | |
| Oregon | | | X | |
| Washington | 8/17/79 | | | |
| | 22 | 3 | 9 | 16 |

Generally, the functions identified for immediate delegation to the States are: plans and specifications review, O&M manuals, plan of operation and change order approvals, and administrative processing of grant applications. Generally the last functions delegated are (1) facility plan approval - because of the complicated and sensitive aspects of this function and (2) interim construction inspections, biddability and constructability review of plans and specifications and on-site presence on large projects - because such functions can be carried out, in the early going, by the Corps of Engineers under the interagency agreement.

Progress in negotiating some State agreements was delayed because of changes in State administrations which occurred in the Fall 1978 elections.

In view of the above, the interagency agreement with the Corps of Engineers to provide back up support for EPA and the States will be extended as appropriate. In no instances has the signing of any agreement provided immediate relief to the Regions. This is because considerable time is spent following delegation: (1) in phasing in various components of the grants management process as the States demonstrate the capability and staff resources to accept delegated functions, (2) in closely monitoring State efforts during the initial stages of delegation; (3) in providing additional in-service training for new staff in both delegated and to-be-delegated functions; and (4) in developing procedures and guidelines for tasks to be performed for subsequently delegated functions.

Balancing Corps activities in States with signed or about to be signed delegation agreements is a complex matter.

The 2% of the States' allotments for carrying out delegation agreements may prove adequate for many States. Certainly, in the initial years of operation, ample funds are available to the States for this purpose. However, when States have hired their full complement of staff as provided for in manpower studies, there is some question whether operating funds will be adequate in some States, particularly if appropriations are cut below the $4 billion level. California is already experiencing insufficient funds to operate their full delegation.

Since our regions have responsibilities for (1) closely monitoring States during the early phases of

delegation agreements, (2) developing additional delegation agreements, (3) providing in-service training for States, (4) providing selected support services for delegated States during the phase-in period, and (5) providing full support services for non-delegated States for an indeterminate period, the demands on the construction grants program staff in the Regions are expected to remain heavy.

Although many States with 205(g) agreements or negotiating 205(g) agreements, have State approved positions to adequately run the construction grants program and have publicly stated that they will be able to hire and maintain needed staff, actual hiring is lagging behind schedule in many States.

The percentage of full delegation achieved to date varies from State to State. For example, only two states, California and New Hampshire, stand at full delegation and four States have taken 70-95% of "full" delegation. Of the remaining delegated States, five have been delegated from 40-69% of the program and 17 have been delegated less than 40% of the potential functions. One state has recently received delegation but has not yet assumed any function.

Information on the date and amount of grant for each fiscal year to date, summary of the functions delegated, and our expectations as to when each of the presently delegated states will assume full delegation and achieve full operational status will be provided within 7 days of the hearing.

E. 301(h) Program

The 301(h) program provides a unique opportunity for a number of coastal municipalities to seek a modification of the secondary treatment requirements. Because of the case-by-case review of each situation where less-than-secondary treatment is proposed, delays in the three step construction grants process will likely occur. Municipalities which receive 301(h) modified permits may realize significant savings in initial construction as a result of the EPA review of 301(h) applications. For those municipalities which are denied modified permits, secondary treatment facilities will still have to be constructed. In such instances the delay caused by application review will not be to the municipality's advantage.

Estimate of potential total construction funds impacted by decisions on final 301(h) applications*

| West Coast | Total POTW's Submitting Final 301(h) Applications | Estimated Total (Near-term) Construction Cost of Achievin Secondary Treatment ** |
|---|---|---|
| 1) California | 12 | $1,520,080,000 |
| Hawaii | 5 | 173,400,000 |
| 2) Washington | 18 | 285,846,000 |
| ♯ Alaska | 11 | 191,810,000 |
| | 46 | $2,171,136,000 |
| **East Coast** | | |
| Maine | 1 | $ 1,249,000 |
| Massachusetts | 6 | 512,272,000 |
| 3) New York | 2 | 729,995,000 |
| Virginia | 2 | 53,818,000 |
| ♦ Puerto Rico | 10 | 225,799,000 |
| Virgin Islands | 2 | 8,141,000 |
| | 23 | $1,531,270,000 |
| Totals | 69 | $3,702,406,000 |

* Data source : 1978 Needs Survey

** "Estimated Total (Near-term) Construction Cost of Achieving Secondary Treatment" are the estimated capital costs (Federal, State and local funds) for the construction of secondary treatment facilities needed to meet current requirements; the dollar amounts indicate the estimated total cost for secondary treatment for these facilities, including projected future funds, but do not include funds to cover long-term expansion of facilities.

1) Includes only the SW plant for San Francisco plus $120,000,000 for the new outfall (dry weather flow only); includes full estimate by E. Bay MUD for costs of secondary treatment of combined sewer overflows.

2) Includes Alki, Carkeek & Miller STP costs as an estimate for the Duwamish STP (Seattle)

3) Does not include estimated costs for NYC North River Plant (application has been withdrawn)

♦ Includes at least one facility where a new STP is under construction

EPA has received 69 final applications for 301(h) modified permits. We estimate that approximately $3.7 billion in construction funds currently needed to meet secondary treatments could be directly impacted by decisions made on final 301(h) applications. See the following chart. Additional funds required for the construction of future expansions may also be impacted by the 301(h) decisions. However, some of the funds may be required to undertake the construction of improved less-than-secondary facilities such as outfall modification or relocation.

Review procedures are being developed that will enable the Administrator to issue tentative determinations on the applications in groups of six over the next six to 18 months. Negative determinations by the Administrator could result in further delay of construction, since municipalities or concerned citizen or interest groups will inevitably seek relief through newly established non-adversary initial licencing (N.A.I.L.) hearing procedures.

F. User Charge Systems

We feel that our earlier problems with the user charge requirement have been eliminated due to:

-- increased verbal guidance from Headquarters to the Regions, including periodic workshops on user charge requirements.

-- greater familiarity with user charge requirements on the part of grantees, consultants, states, and Regional personnel.

-- relief granted by the Congress which allows the use of dedicated ad valorem tax systems to meet the user charge requirement.

-- granting of a class deviation by EPA for those grantees which submitted user charge systems by May 1, 1979, which allows those grantees to continue receiving grant payments during the time that their user charge systems are being reviewed by the Regions. Our Regions report that this class deviation was useful for a number of grantees, mainly in the New England States, which had submitted their user charge systems in a timely manner, but whose review was delayed by the temporary increase in Regional workloads, as grantees rushed to meet the June 30, 1979, deadline for receiving approval of user charge systems. (Noncompliance resulted in suspension of payments and grants awards.)

We are currently formulating improved user charge guidelines, to replace Appendix B of 40 CFR Part 35, which we expect will further improve our performance in this area, by giving our grantees more flexibility in developing their user charge systems (especially in cases where unusual circumstances exist), while at the same time ensuring the proportionality of each user charge system.

At the present time, we estimate that the user charge requirement is causing:

-- virtually no delays in the awarding of new grants.

-- about $100 million in payments on about 70 projects to be withheld by EPA, mostly for relatively short periods while user charge systems are being reviewed by the Regions.

G. Industrial Cost Recovery

The current uncertainty over the future of ICR has caused varying responses among our grantees. Most are continuing to develop the required systems, and we have received numerous complaints from our grantees that they are spending time and money to develop systems that may never be used. On the other hand, some grantees have slowed or even halted the development of their systems; for these grantees, the expiration of the moratorium on EPA enforcement of the ICR requirement (currently scheduled for December 1, 1979) will result in:

-- about $380 million in new grants to about 125 grantees being delayed for periods ranging from 2 months to 2 years, while ICR systems are developed, reviewed, and approved.

-- about $400 million in payments on about 215 projects being delayed for periods ranging from 1 month to 1 year, while ICR systems are completed, reviewed, and approved.

We now have close to one thousand approved ICR systems, but less than 20 grantees have elected to collect ICR payments during the moratorium period. Prior to the moratorium, EPA received about $400,000 in payment of the 50 percent Federal share of ICR collections, including one check from Denton, Maryland, for $10.04.

We strongly urge the Congress to grant a two-year extension of the ICR moratorium prior to its expiration on December 1, 1979. This will give the Congress an adequate period to reach a final decision on the future course of ICR. To assist the Congress in reaching its decision, EPA will soon submit a range of alternatives to the present ICR requirement, which we believe would enable the ICR program to achieve its intended purposes. (As you know, our January 25, 1979, report to Congress on the ICR requirement concluded that the ICR program is not presently achieving its statutorily intended purpose.)

## VI. PARTICIPANT GROUP RECOMMENDATIONS

Many participant groups monitor the construction grants program; EPA solicits and through its public participation regulations requires that adequate opportunity be given to all interested and affected parties to comment upon specific projects and guidance, and upon the program in general. The Agency has established procedures to receive comments and recommendations from these groups and is always open to and responds to their comments on the program. Recently, two major groups issued reports or recommendations on the program which the Agency has considered and responded to as follows:

American Consulting Engineers Council (ACEC) issued a report in June this year which included six recommendations for modifying the construction grants program. EPA has carefully considered the recommendations and has found them to have been resolved already, in the process of being resolved or impractical to adopt. A separate statement containing EPA's detailed comments on the recommendations follows.

The Association of State and Interstate Water Pollution Control Agencies (ASIWPCA) recently issued a document containing recommendations for an improved national water quality program. EPA has found the ASIWPCA recommendations to be excellent, helpful and constructive. The recommendations concern the construction grants, planning and enforcement areas of the water pollution control program. EPA has prepared a final draft of its responses to the recommendations and the draft is now being coordinated with ASIWPCA before it is made a final document.

Summary of ACEC Suggestions with Comments

I. Replace the EPA Construction Grants Program With a Simple Local Certification Program

This ACEC suggestion would be modeled upon the Local Public Works Program of the Department of Commerce. That program did not pay for planning and design costs of a project, just the construction. All projects had to be ready-to-go to construction when the grant was made. It was an emergency program to boost employment immediately. It appears that local governments would be opposed to such an EPA program since there would be no Federal help in planning and design which would be prohibitively expensive for medium and small size towns to finance alone. With no guidance for environmental factors, the ready-to-go projects could be embarrassing for EPA to fund.

II. Retroactive Application of Regulations to EPA Projects

Senator Bellman advocated putting a provision for no retroactivity of regulation provisions in the law, but this request was resolved by the Administrator writing a letter to Senator Muskie that new regulations would not be applied to projects under construction or likely to be into construction within 6 months of the grant award.

III. Reduce the Impact of EPA Procurement and Federal Procurement Regulations on A/E Contracts.

GAO has criticized EPA for not containing A/E profits within acceptable limits. EPA now requires grantees to review A/E contracts for cost and profit but does not limit profit per se. EPA is now conducting a study with the help of ACEC, NSPE, and ASCE to ascertain the economic health of the portion of the A/E industry that works predominately on EPA construction grants projects. The new Attachment O of OMB Circular 102 will establish new guidelines for A/E contracts.

IV. Reduce Delay in Start-up and Completion of Construction Grant Projects by Permitting Combination Step 1 and 2 Grants

The prior-to-1971 construction grants program in effect operated the way that ACEC is now advocating. Many projects got to the equivalent of Step 3 without approvable design and this resulted in considerable wasted design effort and delay. Alternatives were not properly evaluated

and the design suffered from lack of planning. ACEC would also have a reimbursable program for Step 1 and 2. This would be unacceptable because Federal funds would be pre-committed without proper controls and safeguards.

V. EPA Procurement Regulations Should be Relaxed for Small Communities

EPA's experience is that small communities are most in need of guidance for perhaps their only major capital project. EPA has recognized the special problems of small communities by providing 14 special assistance programs and exemptions. EPA is now developing, with the American Bar Association, a special procurement ordinance for small communities that will simplify small town procurement even more. A handbook is also being planned to provide easy guidance for small towns.

VI. Establish a Fixed Time Period in Which EPA Must Either Approve or Reject Projects

EPA has cut down the average processing time for grant applications to 115 days. As the program is delegated to more States, this will be further reduced. Automatic approval of grants within 90 days would override the EPA responsibility to be fully responsible for the program. The 90 days approval period will soon be reached for almost all grant applications, but exemptions will occur for good cause.

## VII. SPECIAL AREAS OF CONCERN

This section discusses issues of major and continuing concern in the grants program.

### A. Advanced Treatment Reviews

Congress required that the Administrator approve all advanced treatment projects with an incremental cost of more than $1 million. EPA did not solicit this review but concurs with the intent of closer scrutiny of costly, sophisticated advanced treatment projects. The intent of these reviews is spelled out in PRM 79-7. To be approved, the projects must be well justified in terms of attainment or enhancement of water quality or mitigation of public health hazards, where they exist and in terms of cost-effectiveness.

Thus far, EPA Headquarters has had 71 projects submitted for review; a final decision has been made on 38 projects with a total cost of $1.480 million; capital cost savings resulting from these decisions total $35.4 million. Decisions on more projects are pending with a potential additional capital cost savings of over $60 million. The inflationary costs of delay of the original projects caused by these reviews is estimated at $93 million for capital costs. This cannot, of course, be directly compared to the cost savings achieved by these reviews since the former costs are losses in purchasing power and the latter savings are real resource savings. While the capital cost savings and subsequent unestimated operations and maintenance cost savings from Headquarters reviews are important, equally important are the cost savings and other actions by EPA regional offices also implementing the policies and precedents of PRM 79-7 and Headquarters decisions. EPA estimates that over $28 million of total incremental costs of $64.5 million was saved by regional decisions. (See following chart).

Major issues in the reviews include cost-effectiveness of unit processes and adequacy of modeling efforts including supporting data from intensive surveys. Where treatment processes appear to be redundant or not cost-effective, EPA has stated we will not fund them. When there are not adequate data demonstrating water quality conditions will be improved by advanced treatment processes, EPA has deferred the unjustified processes pending the results of suggested further water quality studies.

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Major issues with EPA's reviews include the tremendous investment in staff and other resources by Headquarters, concerns raised by the States about the reviews impinging upon State standard setting prerogatives, and delays and added inflationary costs due to these added reviews.

The following chart shows the status of projects submitted to Headquarters for review:

| | Number of Projects | Total Cost ($millions) | Incremental Cost ($millions) | Cost Savings |
|---|---|---|---|---|
| Projects submitted for HQ review to date | 71 | 2239.8 | 510.3 | |
| Project Reviews Completed | 38 | 1480.0 | 309.3 | 35.4 |
| Exempted or Returned to Region | 7 | 82.1 | 25.3 | |
| Projects Awaiting Final HQ Action | 12 | 420.7 | 131.0 | 62.5 |
| Projects Under Review | 14 | 257 | 44.7 | |

B. EPA Funding of Pipe Projects

At this time, EPA does not have the data to separate out by fiscal year and Needs Survey category the obligations and outlays of grant funds for "pipe" projects. A rough estimate, however, indicates that about 55% of construction grant funds obligated has been for treatment plants and infiltration and inflow projects. The remaining 45% has gone for interceptors, collectors, and combined sewer overflow projects. EPA also estimates that less than 10% of its funds has been obligated for collector sewer projects.

C. Completed Projects

Under the 1972 law, construction has been completed for 1,862 Step 3 projects costing $2.1 billion. These figures include all projects that are operational (beneficial occupancy stage).

D. Preconstruction Lags

Six months is considered by EPA as a sufficient amount of time for the grantee to complete the bidding process,

REGIONAL REVIEWS
AWT/AST STATUS SHEET
Less Than $1 Million

| | No. of Projects | Capital Costs | Inc. Costs | Savings |
|---|---|---|---|---|
| Region I | 4 | $ 20.25 | $ 1.57 | $ 0 |
| Region II | 12 | $ 46.934 | $ 2.812 | $ 1.34 |
| Region III | 44 | $ 24.617* | $17.1537* | $ 7.291 |
| Region IV | 21 | $ 58.64 | $ 7.308 | $ 2.805 |
| Region V | 53 | $118.97* | $14.2575 | $ 1.2125 |
| Region VI | 37 | $ 31.9871 | $14.9174 | $13.6934 |
| Region VII | 0 | $ 0 | $ 0 | $ 0 |
| Region VIII | 5 | $ 27.0 | $ 4.81 | $ 0 |
| Region IX | 0 | $ 0 | $ 0 | $ 0 |
| Region X | 2 | $ 4.4 | $ 1.76 | $ 2.3 |
| TOTALS | 178 | $332.7381 | $64.5886 | $28.6413 ** |

*(all project costs not known)
** Cost savings are 44% of incremental costs and 8% of total costs of projects reviewed.

award the construction contract and issue an order to the contractor to start work. Accordingly, if construction is not initiated within six months of Step 3 award, the project is considered as being in a delayed (preconstruction lag) status.

Since the passage of P.L. 92-500, preconstruction lags have been a serious problem in the construction grants program. The problem reached a peak in April 1978, when the grant value of preconstruction lag projects exceeded $2.8 billion. Due to a number of initiatives, this amount has been reduced to its current value of $876 million, the lowest figure in over three years. The table on the next page summarizes Step 3 projects which have not initiated construction as of October 11, 1979.

Within the past year EPA has directed the regional offices with serious preconstruction lag problems to develop and implement a strategy for resolving the problem of delayed projects. As part of the strategy, EPA set a goal for reducing the grant value of preconstruction lag projects to 10% of the 1978 regional allotment. To date, five of the ten regional offices have reached this goal. As part of the overall agency strategy for resolving the preconstruction lag situation, a National study was conducted to determine the reasons for delays in initiating construction. Once the reasons for the delays were identified, a plan for resolving the problems was established, and management reforms were developed. The management reforms are contained in a draft Program Requirements Memorandum (PRM) which has been circulated for comment. The comments have been received and the final PRM should be issued shortly.

E. Funding Policy for Multiple-Purpose Projects

Many municipalities have planned multiple-purpose projects representing an integrated solution to pollution control and other problems at the same time. Municipalities, particularly in the West where wastewater reclamation is desired, appear to be more and more interested in attacking several problems simultaneously. The 1977 Clean Water Act encourages innovative and alternative technology, and many such projects are inherently multiple-purpose.

We have been working toward a new policy for multiple-purpose projects for over a year. We have analyzed the budgetary, legal and programmatic implications of various policy options and are continuing to study these questions.

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FACT SHEET

STEP 3 PROJECTS WHICH HAVE NOT INITIATED CONSTRUCTION

OCTOBER 11, 1979

1. Step 3 Projects not under construction as of October 11, 1979:

| Region | 0 to 6 Months Million | # | 7 to 12 Months Million | # | 13 to 18 Months Million | # | Over 18 Months Million | # | Total Million | # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | $156.0 | 22 | $ 21.6 | 3 | $ 8.3 | 3 | $ 0.2 | 1 | $ 186.1 | 29 |
| 2 | 68.4 | 15 | 20.0 | 6 | 4.7 | 2 | 114.3 | 17 | 207.4 | 40 |
| 3 | 350.5 | 70 | 6.0 | 5 | 26.1 | 4 | 120.4 | 35 | 903.0 | 114 |
| 4 | 209.3 | 100 | 53.1 | 11 | 49.7 | 13 | 31.0 | 10 | 343.1 | 134 |
| 5 | 257.6 | 52 | 170.4 | 20 | 78.7 | 13 | 51.1 | 17 | 557.8 | 102 |
| 6 | 130.9 | 54 | 4.6 | 6 | 5.2 | 6 | 10.3 | 6 | 151.5 | 72 |
| 7 | 60.1 | 20 | 11.1 | 8 | 10.0 | 5 | 3.0 | 4 | 84.2 | 37 |
| 8 | 57.0 | 18 | 5.9 | 4 | 1.4 | 2 | — | — | 64.3 | 24 |
| 9 | 93.0 | 33 | 26.0 | 8 | 26.3 | 2 | 3.8 | 3 | 151.3 | 46 |
| 10 | 71.4 | 32 | 9.2 | 6 | 0.6 | 1 | 1.1 | 2 | 82.3 | 41 |
| Total | $1,454.2 | 416 | $329.9 | 77 | $211.2 | 51 | $335.7 | 95 | $2,331.0 | 639 |

2. Initiation of Construction for a Step 3 grant is defined in 40 CFR 35.905 as "Issuance of a notice to proceed under a construction contract for any segment of Step 3 project work or, if notice to proceed is not required, execution of the construction contract."

3. Six months is considered an adequate period of time for the grantee to complete the bidding process, award the initial construction, and issue a notice to proceed.

4. If construction is not initiated within six months of Step 3 grant award, the project is considered as being in a delayed status.

In this process, we are holding discussions within EPA and with other interested parties.

Existing Agency policy requires costs of a multiple-purpose project to be allocated among purposes as a basis for grant assistance. The total cost allowable for grant funding is not to exceed that allocated to the pollution control purpose. This policy is based on the assumption that achieving several purposes simultaneously should be less costly than achieving them separately, and that all purposes should share in the cost savings. The grant eligibility for multiple-purpose reclamation projects involving pollution control and water supply under this memorandum is less than the eligibility of the single-purpose pollution control project.

We are considering the additional funding options described below, which would provide additional financial assistance for multiple-purpose projects. We must, however, balance our desire to encourage the multiple-purpose approach through additional funding, on the one hand, against the relative shortage of funds to achieve our primary legislative mandate to control water pollution, on the other.

Summary of Seven Funding Options

1. Alternative Justifiable Expenditure (AJE) Method. Keep the status quo. Use the Alternative Justifiable Expenditure (AJE) method for allocating costs, except for recreation projects where the eligibility level is the same as the single-purpose wastewater treatment project. Grant eligible cost under the AJE method is less than the single-purpose cost, based on the concept that each purpose of a multiple-purpose project should share equitably in the overall cost savings resulting from a multiple-purpose approach.

2. Single-Purpose Cost. Make all multiple-purpose projects eligible at the cost level of the least costly conventional wastewater treatment single-purpose project.

3. 115 Percent Rule. Make all I/A multiple-purpose projects eligible at 115 percent of the single-purpose level. (The actual rule in this option is somewhat more complex, employing a ratio of the present worth costs of the single and multiple-purpose projects.)

4. Full Eligibility - Guaranteed Water Quality Benefits. Use the same eligibility rules as Option 3, except make certain reclamation and reuse projects are

fully eligible -- those in which the reuse replaces existing water withdrawal and leaves water in the stream, which is required by a water quality standard or a water quality management plan, for a guaranteed period of 20 years. Expand the definition of "Enforceable Requirements of the Act" so as to make these reclamation projects eligible for placement on the State priority list by including projects required by either an NPDES permit, a water quality standard, or a water quality management plan. May require legislative change.

5. Full Eligibility - New Priority. Use the same eligibility rules as Option 3, except that all reclamation and reuse projects would be fully eligible. Revise the priority system process so that the list is based on a ranking of all surface and ground-water quality problems. Also, expand the definition of enforceable requirements as in Option 4. Legislative changes would be required.

6. Full Eligibility - Category Limits. Use the same eligibility rules as in Option 5. Expand the definition of enforceable requirements, and institute limits on the proportion of state allotments which can be used to fund reclamation and reuse projects. Funding for reclamation and reuse must come from 25 percent set-aside. No pure reclamation projects funded before ready-to-go. NPDES project may require legislation.

7. Integrated Facilities. Fully fund "integrated facilities," as defined in Section 201(e) of the Clean Water Act, and all other multiple-purpose projects at the level of the single-purpose project. These projects must produce revenues in excess of capital and O&M costs. May require some legislation.

The following tabulation shows the Federal costs that would be incurred for various types of projects under each of the funding options.

In June this year, we published and distributed widely for public comment an options paper discussing each of the above alternatives. Generally, public response, except in the Far West, has favored options 2 or 3. Three Western States (Arizona, California and Washington) and several non-government organizations from the Western States preferred options 5 or 6.

A decision on the funding option is expected to be reached in November.

MULTIPLE-PURPOSE PROJECTS

COSTS OF SHORT-RUN OPTIONS

(BILLIONS OF DOLLARS)

| | CSO-Urban Drainage | Co-Inclineration | Co-Landfills | Reuse | Total /1 |
|---|---|---|---|---|---|
| Total potential Demand if fully eligible | 103 | 4.5 | 1.5 | 9.3 | 118 |
| Total federal share if fully eligible | 77 | 3.8 | 1.1 | 7.9 | 89 |
| Total federal share under current policy (AJE) | 19 | 1.7 | .9 | 4.5 | 25 |
| Extra Cost of option Over Current Policy /1 | | | | | |
| 1 (AJE) | 0 | 0 | 0 | 0 | +0=25.0 |
| 2 (single-purpose /2 cost | 1 | 0.2 | 0.1 | 0.4 | +1.7=26.7 |
| 3 (115% rule) /2 | 1 | 0.5 | 0.1 | 0.8 | +2.4=27.4 |
| 4 (Full eligibility, Guaranteed water quality benefits) | 1 | 0.5 | 0.1 | 1.5 | +3.1=28.1 |
| 5 (Full eligibility, new priority) | 1 | 0.5 | 0.1 | 3.4 | +5=30.0 |
| 6 (Full eligibility, category limits) | 1 | 0.5 | 0.1 | 3.4 | +5=30.0 |
| 7 (Integrated facilities) | 1 | 2.3 | 0.2 | 0.4 | +3.9=28.9 |

/1 Total cost of options includes base cost under current policy.
/2 Recommended options.

## VIII. LAWS AND EXECUTIVE ORDERS IMPACTING GRANTS

### A. Summary of Laws and Executive Orders

The Construction Grants Program through EPA or its grantees is affected by 54 other Laws and Executive Orders. In this myriad requirements the specific impacts may derive from the mandate of the law itself, the procedural regulations developed to enforce the requirements of that law or both. In most cases, these procedures must be followed independently of other environmental procedures. The proliferation of independent procedures has made compliance with other laws in the grants program very complex and has extended the overall time frame for the completion of construction grants projects.

EPA has developed regulations and guidance to assist itself and its grantees in complying with the requirements of the other laws. Consultation and coordination with the other Federal agencies administering these laws is a major aspect of EPA compliance. The Agency is working to facilitate compliance with the other laws in a manner which achieves the objectives of these laws without imposing undue administrative burdens on the program and its grantees.

A list of the laws and executive orders impacting the construction grants program is attached; a brief description of the major requirements is given.

### B. Implementing Guidance and Requirements Other than Formal Regulations

Program Requirements Memoranda (PRMs) are the construction grant policy directives that supplement the program's formal regulations. PRMs are a useful mechanism to expedite the dissemination of interpretations of the law and regulations.

A variety of issues can be addressed in a PRM, ranging from immediate implementation of a legislatively mandated procedure to changes in response to perceived problems in the program to managerial matters which keep procedures current.

In addition to Agency regulations and PRMs, States and localities often enact their own additional requirements which may have the effect of restricting or delaying the program in some way.

The following materials discuss and describe the PRMs.

## LAWS AND EXECUTIVE ORDERS IMPACTING GRANTS

### Major Requirements

Archaeological and Historic Preservation - This covers both the National Historic Preservation Act of 1966 and The Archaeological and Historic Preservation Act of 1974. A major requirement in this area is procedures for comment and agreement when grant activities affect properties included in or eligible for inclusion in the National Register of Historic Places.

Civil Rights - Included here in addition to the Civil Rights Act of 1964, are Executive Order 11246, "Equal Employment Opportunity" and Executive Order 11988, "minority Business Enterprise" both based on the Act. These requirements include not only a prohibition on discrimination by Federal construction contractors, but an obligation to take affirmative action as well.

Clean Air - The Clean Air Act established a comprehensive national program to control air pollution and protect air quality. It is especially important at this time because of the impact of Section 316 which allows the Administrator of EPA to condition, limit or withhold sewage treatment grants if state air quality plans are inadequate or if air pollution emissions resulting directly or indirectly from proposed treatment works are not accounted for in the plans.

Clean Water - The Clean Water Act of 1977 while ultimately proposing the elimination of all discharge of pollutants into any surface water, has a more immediate goal of obtaining "fishable swimmable" waters. To obtain these goals the grants program must be coordinated with other components of the Act including areawide planning, standards on effluent limitations. and several permit programs.

Coastal Zone Management - The Coastal Zone Management Act provides assistance to coastal state governments for development and implementation of coastal management plans. Wastewater treatment projects are required to be approved by the coastal state as consistent with an approved management plan.

Davis-Bacon - The Davis Bacon Act requires payment of prevailing wages and fringe benefits on Federal Construction contracts over $2000.

Endangered Species - The Endangered Species Act requires Federal agencies to assure that their projects and other actions do not jeopardize the continued existence of endangered and threatened species or result in the destruction or modification of the critical habitat of such species.

Fish and Wildlife - The Fish and Wildlife Coordination Act of 1958 and the Fish and Wildlife Improvement Act of 1978 require Federal agencies to consult the Fish and Wild Service on project impacts on wildlife resources.

Flood Disaster and Flood Insurance - Included here are the Flood Disaster Protection Act of 1973, the National Flood Insurance Act of 1968 and, grounded in their authority, Executive Order 11988, "Floodplain Management." These requirements mandate avoiding Federal support for floodplain development whenever there is a practicable alternative, and the procurement of flood insurance for all insurable wastewater facilities constructed in floodprone areas.

National Environmental Policy - The National Environmental Policy Act requires a comphrensive environmental evaluation of all major Federal actions significantly affecting the quality of the human environment. An environmental impact statement must be prepared for all projects with potential significant adverse environmental impacts.

Protection of Wetlands - This Executive Order No. 11990, based on the legislative mandate of NEPA, calls for each agency to take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when carrying out certain activities in these areas.

Relocation Assistance - The Uniform Relocation and Real Property Acquisition Policies Act provides for uniform and equitable treatment of persons displaced from their homes, businesses and farms by Federal and Federally-assisted programs; and, it establishes uniform and equitable land acquisition policies for these programs.

Resource Conservation and Recovery - This Act of 1976 established a new solid waste management program for the country. Municipal sewage sludge is defined as solid waste and may in some cases be regulated as a hazardous waste.

Safe Drinking Water - This Act establishes a comprehensive program to enhance and protect the quality of the nations drinking water. No Federal financial assistance may be made to a project that EPA determines may contaminate a sole or principal source aquifer.

Wild and Scenic Rivers - This Act authorizes a Federal program to designate and protect rivers and segments of rivers with exceptional wilderness, scenic or recreational characteristics. A Federally assisted wastewater treatment project may be effectively vetoed if it is determined to have an adverse impact on a wild and scenic river.

Other Requirements

Age Discrimination Act of 1975

Soil and Water Resources Conservation Act of 1977

Toxic Substances Control Act (1976)

Rehabilitation Act of 1973

Historic Sites, Buildings and Antiquities Act of 1935

Marine Protection Research and Sanctuaries Act of 1972

Rivers and Harbors Act of 1899

Solid Waste Disposal Act (1973)

Water Resources Planning Act (1965)

Federal Power Act (1935)

Intergovernmental Cooperation Act of 1968

Anitquities Act of 1906

Federal Insecticide Fungicide and Rodenticide Act (1973)

Marine Mamal Protection Act of 1972

Noise Control Act of 1972

Bridge Act of 1906

General Bridge Act of 1946

Contract Work Hours and Safety Standards Act (1969)

Copeland (Anti-Kickback) Act (1969)

Hatch Act (1967)

Appalachian Regional Development Act (1969)

Consolidated Farm Rural Development Act (1973)

Demonstration Cities and Metropolitan Development Act

Intergovernmental Cooperation Act of 1966

Housing and Urban Development Act of 1970

Public Works and Economic Development Act of 1965

Local Public Works Employment Act of 1976

Executive Order No. 11296, "Flood Hazards"

Executive Order No. 11593, "Protection of the Cultural Environment"

Executive Order No. 11738, "Utilization of Facilities on EPA List of Violating Facilities"

Executive Order No. 11914, "Non-Discrimination with Respect to the Handicapped in Federally Assisted Programs"

Executive Order No. 12114, "Environmental Effects Abroad of Major Federal Actions"

Presidential Memorandum on Environmental Quality and Water Resources Management, July 12, 1978

PROGRAM REQUIREMENTS MEMORANDA CATEGORIES

The 67 active PRMs can be loosely grouped into five categories (See Attachment A). The two most numerous categories, "General Policy and Guidance Statements" and "Implementation of New Agency Planning Procedures" overlap a great deal. The basic difference is one of timing. The former category covers PRMs addressed to broader more generalized policy statements which have no great immediacy involved, but which serve as guidance for the ongoing, more effective operation of the program. Thirty PRMs can be listed here. The latter category covers generally more formalized situations where a law, regulation and/or specific problem requires a new procedure, and its effect will generally be both immediate and in the future. Seventeen PRMs are primarily of this type.

The third category is "Implementation of Mandated Planning Procedures." The seven PRMs which are best grouped here have grown out of a direct legal obligation placed on the program to implement a new procedure or policy. This differs from some PRMs in the second category which, although promulgated in response to a law or regulation, can also cite other reasons for implementation. The best example of this third category is PRM 79-7 dealing with funding of advanced waste treatment projects. It was promulgated in direct response to a provision of the 1979 appropriations bill.

The last two categories are "Technical Clarification and Assistance" and "Managerial Matters." Many PRMs contain elements of technical guidance, but few are totally devoted to it. Three PRMs fit the technical category and cover such areas as infiltration/inflow program guidance (PRM 78-10).

The category of "Managerial Matters" covers ten PRMs. These address both existing and potential management concerns and practices. The topics covered range from purely administrative matters such as cancelling obsolute guidance (PRM 75-19) to how to manage preconstruction lag (PRM 78-12).

PRM ATTACHMENT A

| General Policy and Guidance Statements | | Implementation of New Agency Planning Procedures | Implementation of Mandated Planning Procedures | Technical Clarification and Assistance | Managerial Matters |
|---|---|---|---|---|---|
| 75-2 | 75-34 | 75-7 | 75-20 | 77-3 | 75-1 |
| 75-3 | 75-37 | 75-15 | 76-5 | 77-4 | 75-4 |
| 75-5 | 75-38 | 75-27 | 77-9 | 78-10 | 75-11 |
| 75-6 | 75-39 | 75-30 | 78-3 | | 75-13 |
| 75-14 | 76-4 | 75-31 | 78-6 | | 75-19 |
| 75-16 | 77-1 | 75-35 | 79-7 | | 75-29 |
| 75-17 | 77-2 | 75-36 | 79-11 | | 76-1 |
| 75-18 | 77-5 | 76-3 | | | 76-2 |
| 75-21 | 78-4 | 77-6 | | | 78-12 |
| 75-22 | 78-8 | 77-7 | | | 79-9 |
| 75-23 | 78-11 | 78-1 | | | |
| 75-24 | 79-2 | 78-7 | | | |
| 75-25 | 79-3 | 78-9 | | | |
| 75-26 | 79-5 | 79-1 | | | |
| 75-32 | 79-10 | 79-4 | | | |
| | | 79-6 | | | |
| | | 79-8 | | | |

ACTIVE PROGRAM REQUIREMENTS MEMORANDA

| | | |
|---|---|---|
| PRM 75-1 | Use of Revenue Sharing Funds for Waste Treatment Projects<br>- Availability of revenue sharing funds to "supplement" Federal grant funds. | 6/25/73 |
| PRM 75-2 | Experience Clauses for Equipment Suppliers<br>- Restrictive experience clauses in bid specifications not allowable. | 7/11/73 |
| PRM 75-3 | Waste Stabilization Ponds<br>- Achievement of effluent limitation requirements. | 9/11/73 |
| PRM 75-4 | Standardized Construction Contract Documents<br>- Models for basic contract documents | 4/15/75 |
| PRM 75-5 | Non-Restrictive Specifications<br>- Use of brand names in bid specifications. | 8/8/75 |
| PRM 75-6 | Adequacy of Treatment Certification<br>- EDA and HUD assisted projects conforming to minimum treatment requirements of EPA. | 11/8/73 |
| PRM 75-7 | Sewer System Evaluation and Rehabilitation<br>- Basic changes to provide more flexibility. | 2/7/74 |
| PRM 75-11 | Approval of Reimbursement Projects Not Previously Serviced by EPA<br>- Minimum compliance requirements to be met. | 4/17/74 |
| PRM 75-13 | Management of Construction Grant Funds<br>- Use of Title II contract authority for funding grant increases for cost overruns. | 4/19/74 |
| PRM 75-14 | Grant Funds and Project Segmenting<br>- Availability of grants to segments of large projects without regard to operability. | 5/10/74 |
| PRM 75-15 | Class Deviation—Use of Force Account Work on Construction Grant Projects<br>- Deviation from a regulatory provision for a class of Step 1, 2 and 3 projects. | 5/7/74 |

| | | |
|---|---|---|
| PRM 75-16 | Title II Regulations, Section 35.915(i)— Reserve for Step 1 and Step 2 Projects<br>- Administration of the contingency fund for meeting unexpected situations. | 6/3/74 |
| PRM 75-17 | Construction of Pretreatment or Treatment Facilities for Municipal Utilities<br>- Grants for separate facilities cannot be approved. | 6/5/74 |
| PRM 75-18 | Eligibility of Wastewater Treatment Facilities at Municipally Owned Water Treatment Works for Construction Grants<br>- Supplemental attachment to PRM 75-17. | 9/17/74 |
| PRM 75-19 | Cancelling PG-28 - User Charges and Industrial Cost Recovery System<br>- Cancellation of PRM 75-10. | 7/9/74 |
| PRM 75-20 | User Charge Systems<br>- Ad valorem tax base in development of a user charge system. | 7/16/74 |
| PRM 75-21 | Overruns, Reserves and Priority Lists<br>- State options in overrun situations. | 10/16/74 |
| PRM 75-22 | Policy Re Retention of Payments<br>- Policy to minimize retention of amounts otherwise due. | 11/18/74 |
| PRM 75-23 | Escalation Clauses in Construction Grant Projects<br>- No grant assistance to grantees proposing to utilize escalation clauses. | 12/9/74 |
| PRM 75-24 | Large City Problems in State Prority Lists<br>- General Counsel legal opinion on composition of a priority list. | 1/9/75 |
| PRM 75-25 | Eligibility of Land Acquisition Costs for Land Treatment Processes<br>- Guidance on interpretation of the regulatory provisions. | |
| PRM 75-26 | Consideration of Secondary Environmental Effects in the Construction Grants Process<br>- Secondary effects are to be analyzed and taken into account during the grants process. | 6/6/75 |

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| | | |
|---|---|---|
| PRM 75-27 | Field Surveys to Identif, Cultural Resources Affected by EPA Construction Grants Projects<br>- Responsibility to conduct field surveys in areas of primary effects only. | 7/2/75 |
| PRM 75-29 | EPA Procedures in Initiating Debarment Actions Against Grantee Contractors<br>- Situations under which EPA may initiate debarment actions. | 8/5/75 |
| PRM 75-30 | Cost Control<br>- Information on cost control measures to aid in cost-effectiveness analysis. | 9/8/75 |
| PRM 75-31 | Facilitating EIS Preparation with Joint EIS/Assessments (Piggybacking)<br>- Combining EIS preparation with facility plan preparation. | 9/75 |
| PRM 75-32 | Compliance with Title VI in the Construction Grants Program<br>- Requirement of positive steps to assure nondiscrimination. | 2/11/76 |
| PRM 75-34 | Grants for Treatment and Control of Combined Sewer Overflows and Stormwater Discharges<br>- Policy to assure that projects are funded only when careful planning has demonstrated they are cost-effective. | 12/16/75 |
| PRM 75-35 | Allowable Costs for Construction of Treatment Works that Jointly Serve Municipalities and Federal Facilities<br>- Guidance on determination of allowable costs of such treatment works. | 12/29/75 |
| PRM 75-36 | Value Engineering in the EPA Construction Grants Program<br>- Interim policy and updated information on value engineering program. | 1/20/76 |
| PRM 75-37 | User Charge System: Plan and Schedule<br>- Stresses the importance of implementing the regulation on user charge systems. | 3/17/76 |

| | | |
|---|---|---|
| PRM 75-38 | Relationship Between 201 Facility Planning and Water Quality Management (WQM) Planning<br>- Description of the relationships, and the minimum facility planning requirements necessary for EPA approval of a WQM plan. | 2/9/76 |
| PRM 75-39 | Eligibility of Land Acquisition Costs for the Ultimate Disposal of Residues from Wastewater Treatment Processes.<br>- Guidance on interpretation of the regulatory provision. | 4/2/76 |
| PRM 76-1 | Construction Grants Program Issuances<br>- Requirements for policy issuances. | 7/26/76 |
| PRM 76-2 | Cancellation of Certain Program Guidance Memoranda (PGM)<br>- Formally cancel certain PGMs. | 7/26/76 |
| PRM 76-3 | Presentation of Local Government Costs of Wastewater Treatment Works in Facility Plans<br>- Information required to be included in the facility plan. | 8/16/76 |
| PRM 76-4 | Coordination of Construction Grants Program with EPA-Corps of Engineers Section 404/ Section 10 Permit Programs<br>- Procedures when permit is required for EPA assisted wastewater treatment facilities. | 10/14/76 |
| PRM 76-5 | Flodd Insurance Requirements<br>- Summary of National Flood Insurance Program requirements. | 8/16/76 |
| PRM 77-1 | Treatment Works for Recreational Parks, Industrial Parks and Institutions<br>- The subject funding is not to take place until existing needs for pollution control have been met. | 11/23/76 |
| PRM 77-2 | Grant Eligibility of Start-up Services<br>- Identification of specific start-up services that are grant eligible. | 11/29/76 |
| PRM 77-3 | Plan of Operation for Municipal Wastewater Treatment Facilities<br>- Guidance on preparing a Plan of Operation. | 11/29/76 |

| | | |
|---|---|---|
| PRM 77-4 | Cost Allocations for Multiple Purpose Projects<br>- Information to assist in preparing and reviewing cost allocations. | 12/3/76 |
| PRM 77-5 | Grant Eligibility of Land Acquisition by Leaseholds or Easements for Use in Land Treatment and Ultimate Disposal of Residues<br>- Leasing or obtaining an easement on land is grant eligible under certain conditions. | 12/15/76 |
| PRM 77-6 | Easements<br>- Preliminary easement related work will be accomplished concurrent with other Step 2 work. | 5/4/77 |
| PRM 77-7 | Management of State Project Priority Lists<br>- Policy for development of fundable and extended priority lists and their use in management and planning. | 5/13/77 |
| PRM 77-9 | Reallotment of Recovered Funds<br>- Reallotment of recovered obligations other than those which remain after final payment, or after termination of a project. | 8/5/77 |
| PRM 78-1 | Erosion and Sediment Control in the Construction Grants Program<br>- Requirements and procedures for controlling erosion and sediment runoff. | 12/29/77 |
| PRM 78-3 | Buy American<br>- Definitions to aid in implementation of the Buy American provision of the Clean Water Act. | 2/17/78 |
| PRM 78-4 | Grant Eligibility of Land Acquired for Storage in Land Treatment Systems<br>- Two approaches for providing temporary storage that will be cost eligible. | 2/17/78 |
| PRM 78-6 | Industrial Cost Recovery—Interim Guidance<br>- Interim guidance on the relevant regulatory requirements. | 2/17/78 |
| PRM 78-7 | Combined Step 2 and Step 3 Construction Grant Awards (Step 2 + 3)<br>- Applicants meeting certain minimum requirements are eligible for a Step 2 and 3 construction grant. | 2/17/78 |

| | | |
|---|---|---|
| PRM 78-8 | Rejection of All Bids: Guidance for EPA Concurrence Function<br>- The exercise of the right to reject all bids is contingent upon a grantee's demonstration of good cause for that proposed action. | 2/13/78 |
| PRM 78-9 | Funding of Sewage Collection System Projects<br>- Guidance for vigorous review of grant applications for the subject projects. | 3/3/78 |
| PRM 78-10 | Infiltration/Inflow Program Guidance<br>- An optional procedure to substantially reduce the seasonal dependency of the I/I work. | 3/17/78 |
| PRM 78-11 | Toxicity of Chemical Grouts for Sewer Rehabilitation<br>- An alert on the potential health hazards associated with the field application of a major chemical grant used in correcting sewer infiltration. | 5/11/78 |
| PRM 78-12 | Preconstruction Lag Management<br>- Documentation required to obtain a deviation from the regulation for deferment beyond 18 months. | 6/12/78 |
| PRM 79-1 | Safety Requirements for the Design and Operation of Chlorination Facilities Using Gaseous Chlorine<br>- Guidance intended to substantially reduce chlorine hazards which can be potentially dangerous. | 10/23/78 |
| PRM 79-2 | Royalities for Use of or for Rights in Patents<br>- Royalties for the use of or for rights in patents are allowable costs. | 11/13/78 |
| PRM 79-3 | Revision of Agency Guidance for Evaluation of Land Treatment Alternatives Employing Surface Application<br>- Policy and guidance to promote vigorous consideration of the land treatment alternative. | 11/15/78 |
| PRM 79-4 | Discount Rates<br>- New rate to be used in cost-effectiveness analyses. | 11/17/78 |

| | | |
|---|---|---|
| PRM 79-5 | Construction Incentive Program<br>- Program to improve contract performance and thereby create an overall reduction in the total cost of the contract. | 12/28/78 |
| PRM 79-6 | Priority List Guidance for the Development and Mangement of FY 1980 State Project Priority Lists<br>- Guidance for implementing the new provisions of the Act and the 1978 revision to the regulations. | 1/8/79 |
| PRM 79-7 | Grant Funding of Projects Requiring Treatment More Stingent than Secondary<br>- Policy and procedures for review of wastewater treatment projects designed to meet effluent requirements more stringent than secondary treatment. | 3/9/79 |
| PRM 79-8 | Small Wastewater Systems<br>- Funding oif publicly and privately owned small alternative wastewater systems. | 5/9/79 |
| PRM 79-9 | Outlay Mangement in the Construction Grants Program<br>- EPA policy is to establish and maintain a comprehensive system of outlay planning and management. | 5/11/79 |
| PRM 79-10 | Qualification of Major Items of Equipment<br>- Optional qualification procedures for use by EPA grantees. | 7/12/79 |
| PRM 79-11 | Funding of Waste Load Allocations and Water Quality Analyses for POTW Decisions<br>- Policy and procedures for FY'80 on the use of Section 201 and 205(g) funding to augment Section 106 funds to support these tasks. | 9/5/79 |

# WATER QUALITY SUCCESS STORIES

10/79

| Total: 35 States | Areas/Waterbodys - Total: 52 | Clean-up Action | Result |
|---|---|---|---|
| Alabama | Lower Tombigbee River | State legal action in 1971 against industry. | WQS now met, fish kills stopped, bass returned. |
| | Roseberry Creek, Scottsboro | Domestic and industrial discharges diverted from metro area via interceptor system to 5.0 MGD regional secondary STP. Old treatment plants phased out. | Creek now odor-free. Embayment below creek reopened to water-contact sports and fishing. |
| Alaska | Chester and Campbell Creeks, Anchorage | Combined EPA/State abatement effort. | Water clarity improved markedly. |
| | Kodiak Harbor and Gibson Cove | EPA discharge permit in 1973 required that seafood processors install fine mesh screens to collect solid wastes. | Reduced sludge deposits. Improved DO levels. |
| Arkansas | Arkansas River | New STP's built, other STP upgraded, industry upgraded treatment facilities. | River waste suitable for public and industrial water supply, fishing, wildlife propagation, and primary contact recreation. |
| Colorado | Dillon Reservoir, Colorado Rocky Mountains | New STP's built, other STP's upgraded. | Waste discharges held at safe levels in spite of population growth. |
| Connecticut | Naugatuck and Lower Housatonic Rivers | Municipal facilities upgraded. Industrial dischargers built waste treatment facilities. | In 1977, Naugatuck partly swimmable/fishable; all of Lower Housatonic fishable/swimmable. |
| | Willimantic River | State issued industrial discharge permits; a $2.5 million STP built at Stafford. | By 1974, 4,000 trout stocked in river. Willimantic swimmable. |
| District of Columbia | Potomac River | Upstream STP's upgraded, combined sewer overflows under control | Fecal coliform counts down to safe level, Potomac rated clean for swimming. |
| Florida | Escambia Bay | State and federal enforcement actions resulted in industrial cleanup. | Fishkills sharply reduced. Shrimp, oysters, and striped bass reappeared. |
| | St. John's River, Jacksonville | A $2.8 billion metro sewer system construction program. | By 1976, significant fecal coliform count reductions, and reappearance of marine and aquatic life. |
| | St. Petersburg | Land application. | Re-use of effluent to spray city parks. |

## WATER QUALITY SUCCESS STORIES

| State | Waterbody | Clean-up Action | Result |
|---|---|---|---|
| West Virginia | Kanawha River | Municipal/industrial pollution control facilities upgraded, constructed. | Crappies, spotted bass, white bass and sauger reappeared. |
| Wisconsin | Fox River | State and federal efforts to control municipal/industrial pollution. | DO levels improved, fish kills stopped, park and beach areas reopened. |
| | Menomonee River | STP built to treat municipal and industrial wastes. | A balanced aquatic community reappeared in the river. |
| Wyoming | Yellowstone National Park | STPs built and upgraded. Effluents applied to land by spray irrigation. | Yellowstone's water quality preserved in spite of population growth. |

WATER QUALITY SUCCESS STORIES

| State | Waterbody | Clean-Up Actions | Result |
|---|---|---|---|
| Oklahoma | Little Deep Fork | EPA-funded STP on line in 1974. | Water clearer and odor-free. |
| Oregon | Willamette River | State-enforced industrial and municipal waste discharge cleanup achieved by 1972. | Migratory salmon, trout and game fish abound. Swimmers now use river. |
| Pennsylvania / West Va. | Monongahela River | State-enforced mine cleanup, and EPA funded STP construction. | By 1973, a variety of game fish reappeared in the upper river. |
| South Dakota | Huron, South Dakota | EPA 1975 study showed drinking water possibly carcinogenic, due to high chloroform concentration. | Point of pre-chlorination moved, pH adjusted, chloroform content dropped by 75 percent. |
| Tennessee | Beaver Creek, Knoxville | Interceptor sewer system and 2.1 MGD WWT plant constructed between 1973 and 1975. | Creek restored for swimming, wading, fishing, and as a safe and reliable source of water supply. |
| Texas | Houston Ship Channel and Galveston Bay | Industry upgraded treatment facilities. Houston modernized/expanded municipal facilities. | By early 1970's, renewed crabbing, shrimping, commercial fishing and sport fishing in lower channel. Galveston Bay now overfished. |
| | Neches River, Tidal Area | Industrial/municipal treatment facilities constructed between 1970-1975. | Large BOD drop, bass returned. Renewed boating and picnicking along banks. |
| Utah | Ogden Bay, Great Salt Lake | EPA activated a regional response team to remove and cap off waste lagoon threatening bay. | A productive flyway and fragile eco-system saved from possible environmental disaster. |
| Vermont | Stevens Branch, Winooski River | State ordered granite industry to clean up discharges. | By 1973, industry complied. Trout reappeared, renewed water-based recreation. |

## WATER QUALITY SUCCESS STORIES

| State | Waterbody | Clean-up Action | Result |
|---|---|---|---|
| Nevada | Las Vegas Wash | Reduced industrial discharges. New STP facilities. | Reduced algal growths and odors. Improved DO levels. |
| New Hampshire | Contocook River | Municipal and industrial waste treatment facilities. | Improved shorelines, renewed trout fishing. |
| | Pemigewassett River | Municipal STPs upgraded, an industrial facility upgraded. | Renewed swimming, fishing and canoeing. |
| New Jersey | Hackensack River and its Meadowlands | Extensive water pollution abatement actions, and application of land use measures. | DO levels improved. Aquatic and marine life reappeared; 270 species of birds also reappeared. |
| New York | Buffalo River (Buffalo, N.Y.) | All industries built pollution control facilities. Buffalo's primary STP upgraded to secondary. | By 1970, a 95-percent reduction of industrial wastes to river. Improved DO levels allowed renewed sport fishing. |
| | Mohawk River | Massive municipal STP construction - industries built pollution control facilities. | Renewed sport fishing and recreation along most of the Mohawk. |
| | Susquehanna River | Two new secondary municipal STPs on line by 1976. | Fecal coliform counts down, oxygen depletion cut in half. Sport fish reappeared. |
| North Carolina | French Broad River | All dischargers on river issued NPDES permits by 1974. | DO levels improved, odors disappeared, sportfish reappeared. |

## WATER QUALITY SUCCESS STORIES

| State | Waterbody | Clean-up Action | Result |
|---|---|---|---|
| Massachusetts | Lake Quinsigamond | Sewers, catch basins, and storm sewers constructed. | Increased fishing, boating, and swimming. |
| | Deerfield River | A single textile industry built STP at its own expense, treating its own waste and that of a nearby community | A portion of the Deerfield retained its swimmable/fishable classification, previously threatened by the industry's untreated discharge. |
| | Westfield River | Secondary STP built at Westfield to treat domestic wastes and combined sewer overflows. | Swimming restored. Fishermen catching trout, bass and perch. |
| Michigan | Detroit River | State control and enforcement programs. EPA construction grant awards. | Reappearance of sportfishing. Shoreline, once oil-covered, now almost clean. |
| | Grand River | Basin-wide plan to upgrade all waste treatment to secondary. | Salmon and trout reappeared in large numbers. |
| | Kalamazoo River | Secondary plant to treat both industrial/municipal wastes. | By early 1970's, oxygen-consuming wastes at Kalamazoo cut by 75 percent. Game fish reappeared. |
| Minnesota | Lake Minnetonka | New STPs built, older plants upgraded, an extensive interceptor system constructed. | Marked phosphorus and algal reductions, renewed recreational activities. |
| | Lake Shagawa | EPA grant to design and build an AWT plant removing 90 percent of phosphorus. | Algal blooms and odors disappeared, public beaches reopened. |
| Mississippi | Lower Escatawpa River | Industrial and municipal treatment facilities constructed. | Fish reappeared, water quality improved. |
| | Pearl River | Municipal waste treatment plant and interceptor system constructed. | Debris and odors disappeared, fecal coliform counts improved. |
| Missouri | Grove and Center Creeks. | Industrial pollution control facilities constructed. | Aquatic and benthic life reappeared, renewed fishing and primary recreation. |

## WATER QUALITY SUCCESS STORIES

| State | Waterbody | Clean-up Action | Result |
|---|---|---|---|
| Georgia | Sope Creek, Cobb County (Atlanta Metro Area) | Secondary STP's built and upgraded; interceptor sewer system constructed. | By 1975, odors and algae disappeared, aquatic life reappeared, swimmers and picnickers now use creek. |
| Hawaii | Pearl Harbor | Navy, Army and Air Force built joint treatment plant in 1971. | No more raw discharges. Portions of the harbor are open for swimming, boating and fishing. |
| Idaho | Boise River | Food processor developed combination primary treatment and spray irrigation system. | Virtually all BOD, algal growths, nitrogen, and phosphorus to the river eliminated. |
| Illinois | Calumet River | The state and EPA forced industrial cleanup along this Chicago-based river. | By 1975, the state rated the Calumet as the second cleanest stream of the ten streams in Cook County. |
| Indiana | Black Creek (Nonpoint Source Pollution Abatement) | Land management practices used to control erosion causing runoff of fertilizers, pesticides and manure. | Pollution ended up in the Maumee River and Lake Erie under control. Farmers cleaned up their operations with only small sacrifices in crop production. |
| Louisiana | Pearl River near Bogalusa (on Bogue Lusa Creek) | Paper mill built treatment plant; City of Bogalusa built secondary STP. | Patts of waste, and odors, disappeared, fecal coliform counts improved, renewed fishing in Pearl River. |
| Maine | Annabessacook Lake | Extensive areawide interceptor system constructed. | Phosphorus and nitrogen to lake reduced, and algal blooms also reduced. Renewed recreational benefits. |
| | Haley Pond | New AWT facility reduced phosphorus in municipal discharges by 97 percent. | Algal blooms and odors disappeared. Haley Pond and nearby Rangeley Lake saved from eutrophication. |

## Summary of Problems or Other Factors Which Have Hindered or Assisted Efforts to Implement Section 205(g)

### DIFFICULTIES

In order to enter into an agreement, States must exhibit proof of their ability to administer the program. Problems associated with such proof include:

Receiving approval to hire needed staff.

Actual hiring limited by shortage of specialists, relatively low State salary scales, recruiting policies of States.

Training of new staff.

Turnover—historically States "keep" their able, young and ambitious engineers only for something over two years.

EPA Regional Offices suffer from a shortage of personnel who can be spared to conduct in-service training on delegated functions on a scale large enough to effect an earlier assumption of full delegation by a State.

In many States, fund shortages (occasioned by lower appropriations) will begin to make themselves felt in fiscal year 1981.

### POSITIVE FACTORS

Regional construction grants actively and instensively supported and furthered delegation agreements with the States.

Both Regions and State are convinced that delegation will work

Agreements are developed and negotiated on the basis of sound, practical program, fiscal and administrative management concenpts. Given these strong bases, the agreements are bound to achieve—intended goals and to last.

205(g) funds can be limited to use in conducting the construction grants program.

The Corps of Engineers is available to assist with certain aspects of Step 3 projects.

| Total | Date of delegation | Number months since delegation | Percent of full delegation now assumed | Expected date of full delegation |
|---|---|---|---|---|
| Region I: | | | | |
| Connecticut | June 1979 | 5 | 60 | June 1980. |
| Maine | April 1979 | 6 | 10 | December 1980. |
| Massachusetts | September 1979 | 2 | 0 | |
| New Hampshire | November 1978 | 13 | 100 | October 1979. |
| Rhode Island | (1) | | | |
| Vermont | May 1979 | 6 | 20 | February 1980. |
| Region II: | | | | |
| New Jersey | September 1979 | 2 | | |
| New York | December 1978 | 11 | 15 | January 1981. |
| Puerto Rico | (2) | | | |
| Virgin Islands | (1) | | | |
| Region III: | | | | |
| Delaware | (2) | | | |
| Maryland | January 1979 | 10 | 60 | April 1980. |
| Pennsylvania | July 1979 | 4 | 5 | February 1982. |
| Virginia | (2) | | | |
| West Virginia | July 1979 | 4 | 5 | July 1981. |
| District of Columbia | (1) | | | |
| Region IV: | | | | |
| Alabama | | | | |
| Florida | (2) | | | |
| Georgia | October 1978 | 13 | 95 | October 1981. |
| Kentucky | (1) | | | |
| Mississippi | (2) | | | |
| North Carolina | (2) | | | |
| South Carolina | March 1979 | 8 | 30 | October 1981. |
| Tennessee | (1) | | | |
| Region V: | | | | |
| Illinois | August 1978 | 15 | 90 | October 1980. |
| Indiana | (1) | | | |
| Michigan | March 1979 | 8 | 85 | October 1980. |

—Continued

| Total | Date of delegation | Number months since delegation | Percent of full delegation now assumed | Expected date of full delegation |
|---|---|---|---|---|
| Minnesota | March 1979 | 8 | 60 | September 1981. |
| Ohio | (3) | | | |
| Wisconsin | October 1978 | 13 | 75 | October 1980. |
| Region VI: | | | | |
| Arkansas | (2) | | | |
| Louisiana | (1) | | | |
| New Mexico | (2) | | | |
| Oklahoma | (2) | | | |
| Texas | September 1978 | 14 | 60 | October 1980. |
| Region VII: | | | | |
| Iowa | (1) | | | |
| Kansas | (1) | | | |
| Missouri | May 1979 | 6 | 20 | July 1981. |
| Nebraska | July 1979 | 4 | 15 | September 1981. |
| Region VIII: | | | | |
| Colorado | September 1979 | 2 | 20 | |
| Montana | July 1979 | 4 | 20 | Fiscal year 1982. |
| North Dakota | August 1979 | 3 | 20 | |
| South Dakota | April 1979 | 7 | 20 | Fiscal year 1981. |
| Utah | September 1979 | 2 | 20 | |
| Wyoming | May 1979 | 6 | 20 | Fiscal year 1981. |
| Region IX: | | | | |
| Arizona | March 1979 | 8 | 30 | October 1980. |
| California | August 1978 | 15 | 100 | October 1980. |
| Hawaii | (3) | | | |
| Nevada | (2) | | | |
| American Samoa | (1) | | | |
| Trust Territory of Pacific Islands | (1) | | | |
| Guam | (1) | | | |
| Region X: | | | | |
| Alaska | December 1978 | 11 | 30 | December 1979. |
| Idaho | March 1979 | 8 | 30 | |
| Oregon | (2) | | | |
| Washington | August 1979 | 3 | 40 | |

[1] Delegation questionable.
[2] Delegation expected by Sept. 30, 1980.
[3] Delegation expected by Dec. 31, 1979.

## Number and Dollars of Active "Old Law" (Public Law 84-660) Projects

Number, 1277; EPA share, $3,505,884,205.

*Grants awarded for carrying out delegation agreements under section 205(g)*

| *State[1] and fiscal year* | *Grant amount* |
|---|---|
| Illinois: | |
| 1978 | $4,674,870 |
| 1979 | 4,302,750 |
| Texas: 1978 | 3,927,000 |
| Wisconsin: 1978 | 1,754,000 |
| New Hampshire: | |
| 1978 | 792,900 |
| 1979 | 729,786 |
| Georgia: 1978 | 1,747,620 |
| Alaska: 1978 | 245,349 |
| New York: 1978 | 9,558,810 |
| Maryland: | |
| 1978 | 2,499,930 |
| 1979 | 1,626,788 |
| California: | |
| 1978 | 7,156,000 |
| 1979 | 6,586,468 |

| | |
|---|---|
| 1980 | 5,331,902 |
| Idaho: | |
| 1978 | 445,680 |
| 1979 | 330,311 |
| Minnesota: 1978 | 1,682,190 |
| South Carolina: | |
| 1978 | 1,021,927 |
| 1979 | 974,650 |
| Michigan: | |
| 1978 | 3,717,540 |
| 1979 | 3,366,760 |
| Arizona: | |
| 1978 | 698,000 |
| 1979 | 107,000 |
| South Dakota: | |
| 1978 | 400,000 |
| 1979 | 414,181 |
| Maine: | |
| 1978 | 674,550 |
| 1979 | 620,858 |
| Vermont: | |
| 1978 | 400,000 |
| 1979 | 414,000 |
| Missouri: | |
| 1978 | 1,746,130 |
| 1979 | 365,270 |
| Connecticut: | |
| 1978 | 996,480 |
| 1979 | 195,183 |
| Pennsylvania: | |
| 1978 | 3,925,440 |
| 1979 | 3,612,982 |
| Wyoming: | |
| 1978 | 400,000 |
| 1979 | 414,181 |
| Montana: 1978 | 379,600 |
| West Virginia: 1978 | 1,607,804 |
| Nebraska: | |
| 1978 | 456,014 |
| 1979 | 39,436 |
| North Dakota: | |
| 1978 | 400,000 |
| 1979 | 414,181 |
| Washington: | |
| 1978 | 200,000 |
| 1979 | 100,000 |
| 1980 | 1,138,825 |
| Massachusetts: | |
| 1978 | 2,658,780 |
| 1979 | 2,447,140 |
| New Jersey: 1978 | 3,214,350 |
| Colorado: | |
| 1978 | 826,830 |
| 1979 | 761,016 |
| Utah: 1978 | 401,130 |
| Mississippi: 1978 | 800,198 |

[1] In order of agreement signing.

| | REGION VI | | | | | REGION VII | | | | REGION VIII | | | | | | REGION IX | | | | | | | REGION X | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AR | LA | NM | OK | TX | IA | KS | MO | NB | CO | MT | ND | SD | UT | WY | AZ | CA | HI | NV | AS | TT | GU | AK | ID | OR | WA |
| **STEP I GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preapplication Conference | | | | | X | | | X | X | | X | X | X | X | X | X | X | | | | | | X | | | X |
| Step I Appl.-Rev/Cert/Award | | | | | X | | | X | X | | X | X | | X | | X | X | | | | | | X | X | | |
| Plan of Study - Review/Cert. | | | | | X | | | X | X | | | X | X | | X | X | X | | | | | | X | X | | X |
| Env. Assmt. Review/Appraisal | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Public Participation Programs | | | | | | | | X | X | | | | | | | | X | | | | | | | X | | |
| Cost Effectiveness Analysis | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Prel. Design Eval/Conf. | | | | | X | | | | | | | | | | | | X | | | | | | X | | | |
| Facility Plan - Review/Cert. | | | | | X | | | | | | X | | | | | | X | | | | | | | | | |
| I/I Analysis | | | | | X | | | | | | | X | | X | | X | X | | | | | | | | | |
| Sewer System Eval. & Rehab. | | | | | X | | | | | | | | | | | X | X | | | | | | X | | | |
| Small Community Assistance | | | | | | | | | | | | | | | | | X | | | | | | X | | | |
| **STEP II GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Step II Appl. - Rev/Cert/Award | | | | | X | | | | | | X | | | | | | X | | | | | | X | X | | |
| Plans and Specs. Review | | | | | X | | | X | | | X | | X | X | X | X | X | | | | | | X | X | | X |
| Bidd/Const. Review | | | | | X | | | | | | X | | X | X | X | | | | | | | | | | | |
| **STEP III GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Step III Appl. - Rev/Cert/Award | | | | | X | | | X | | | X | | | | | | X | | | | | | X | X | | |
| Const. Contr. Doc. & Bid Review | | | | | X | | | | | | | X | | | | | X | | | | | | | | | |
| Preconstruction Conference | | | | | X | | | | | | | | | | | | X | | | | | | X | | | |
| Contract Change Orders | | | | | X | | | X | X | | X | X | X | X | X | X | X | | | | | | X | X | | X |
| User Charge System | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Ind. Cost Recovery System | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Sewer Use Ordinance | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Value Engineering Study | | | | | X | | | | | | | | | | | X | X | | | | | | | | | X |
| O & M Manual | | | | | X | | | X | X | | X | X | X | X | X | X | X | | | | | | X | X | | X |
| Plan of Operation | | | | | X | | | X | X | | X | X | X | X | X | | X | | | | | | | | | X |
| Pretreatment Plan Review | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Interim Inspections | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Final Inspection | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Start-up Activities | | | | | X | | | X | X | | | | | | | | X | | | | | | | | | |
| Audit Resolutions | | | | | X | | | | | | | | | | | | X | | | | | | | | | |
| Project Close-Out | | | | | X | | | | | | | | | | | | X | | | | | | | | | |

DELEGATION FUNCTIONS IMPLEMENTED BY STATES AS OF 12/31/79 (Designated by X)

| | REGION I | | | | | | REGION II | | | | REGION III | | | | | | REGION IV | | | | | | | | REGION V | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CT | ME | MA | NH | RI | VT | NJ | NY | PR | VI | DE | MD | PA | VA | WV | DC | AL | FL | GA | KY | MS | NC | SC | TN | IL | IN | MI | MN | OH | WI |
| **STEP I GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preapplication Conference | X | X | | X | | | | | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Step 1 Appl.-Rev/Cert/Award | X | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Plan of Study - Review/Cert. | | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Env. Assmt. Review/Appraisal | X | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Public Participation Programs | X | | | X | | | | | | | | | | | | | | | | | | | | | X | | X | X | | X |
| Cost Effectiveness Analysis | | | | | | | | | | | | | | | | | | | X | | | | | | X | | X | X | | X |
| Prel. Design Eval/Conf. | X | | | | | | | | | | | | | | | | | | X | | | | | | X | | X | X | | X |
| Facility Plan - Review/Cert. | | | | | | | | | | | | | | | | | | | X | | | | | | X | | X | X | | X |
| I/I Analysis | | | | X | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Sewer System Eval. & Rehab. | | | | X | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Small Community Assistance | X | | | X | | | | | | | | | | | | | | | X | | | | X | | X | | X | X | | X |
| **STEP II GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Step II Appl. - Rev/Cert/Award | X | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | | X | | X |
| Plans and Specs. Review | X | | | X | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Bidd/Const. Review | | | | | | | | | | | | X | | | | | | | X | | | | | | | | | | | |
| **STEP III GRANT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Step III Appl. - Rev/Cert/Award | X | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | | X | | X |
| Const. Contr. Doc. & Bid Review | X | | | X | | | | X | | | | X | | | | | | | X | | | | | | X | | | | | X |
| Preconstruction Conference | X | | | X | | | | X | | | | X | | | | | | | X | | | | X | | | | | | | |
| Contract Change Orders | X | | | X | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| User Charge System | | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | | | | X |
| Ind. Cost Recovery System | | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | | | | X |
| Sewer Use Ordinace | | | | X | | | | | | | | X | | | | | | | X | | | | | | X | | | | | X |
| Value Engineering Study | | | | | | | | | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| O & M Manual | | | | X | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Plan of Operation | | | | | | | | X | | | | X | | | | | | | X | | | | X | | X | | X | X | | X |
| Pretreatment Plan Review | | | | | | | | | | | | | | | | | | | X | | | | | | X | | X | | | |
| Interim Inspections | X | | | X | | | | X | | | | X | | | | | | | | | | | | | | | | | | |
| Final Inspection | | | | X | | | | X | | | | X | | | | | | | | | | | | | X | | | | | |
| Start-up Activities | | | | X | | X | | X | | | | X | | | | | | | X | | | | X | | X | | | X | | X |
| Audit Resolutions | X | | | | | | | | | | | | | | | | | | X | | | | X | | | | | | | |
| Project Close-Out | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |

| | REGION I | | | | | | REGION II | | | | REGION III | | | | | | REGION IV | | | | | | | | REGION V | | | | | |
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| | CT | ME | MA | NH | RI | VT | NJ | NY | PR | VI | DE | MD | PA | VA | WV | DC | AL | FL | GA | KY | MS | NC | SC | TN | IL | IN | MI | MN | OH | WI |
| ADMINISTRATIVE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A/E Subagreements - Rev/Cert. | | | | X | | | | | | | | X | | | | | | | X | | | | | | X | | X | | | X |
| Force Account - Review/Cert. | | | | X | | X | | | | | | | | | | | | | X | | | | | | X | | X | | | X |
| Grant Amendments - Rev/Cert. | | | | | | | | | | | | | | | | | | | X | | | | X | | X | | | X | | X |
| Interim Grant Payments | | | | X | | | | | | | | | | | | | | | X | | | | X | | | | | | | |
| GICS | | | | | | | | | | | | | | | | | | | X | | | | X | | X | | X | X | | X |
| Outlay Management | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Date of Delegation | 6/79 | 4/79 | 9/79 | 10/78 | | 5/79 | 9/79 | 12/78 | | | | 1/79 | 7/79 | | 7/79 | | | | 10/78 | | 12/79 | | 3/79 | | 8/78 | | 3/79 | 3/79 | | 10/73 |

| ADMINISTRATIVE | REGION VI | | | | | REGION VII | | | | REGION VIII | | | | | | REGION IX | | | | | | | REGION X | | | |
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| | AR | LA | NM | OK | TX | IA | KS | MO | NB | CO | MT | ND | SD | UT | WY | AZ | CA | HI | NV | AS | TT | GU | AK | ID | OR | WA |
| A/E Subagreements - Rev/Cert. | | | | | X | | | X | X | | | | | | | | | | | | | | | | | |
| Force Account - Review/Cert. | | | | | X | | | | | | | | | | | X | X | | | | | | X | | | |
| Grant Amendments - Rev/Cert. | | | | | X | | | X | | | | | | | | X | X | | | | | | X | | | |
| Interim Grant Payments | | | | | X | | | | | | | | | | | X | X | | | | | | X | X | | X |
| GICS | | | | | X | | | | | | | | | | | X | X | | | | | | X | | | |
| Outlay Management | | | | | X | | | | | | | | | | | | X | | | | | | X | | | X |
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| Date of Delegation | | | | | 9/78 | | | 5/79 | 7/79 | 9/79 | 7/79 | 8/79 | 4/79 | 9/79 | 5/79 | 3/79 | 3/78 | | | | | | 12/78 | 3/79 | | 8/79 |

Mr. COSTLE. Let me begin by commenting on the timeliness of this oversight hearing: we have just gone through the initial phases of implementing the 1977 amendments to the Clean Water Act which included a number of changes in the administration of the construction grants program. Thanks to the cooperation of Congress and of various constituency groups that are associated with this program, we were able to get the implementing regulations out in 9 months, which I think is a record for the Government. We might contrast that with the 3 years it took to get comparable regulations out after the 1972 Water Act Amendments.

Although I will discuss the progress of implementing most of these changes in more detail shortly, I would like to note now that a major innovation was a significant shift in the character of the program from a strong Federal orientation to a primarily State effort under section 205(g), the State management assistance provision.

As a result of State assumption of administrative responsibilities, we now project that 25 percent of the program will be handled by the States by late 1980; this is expected to rise to 45 percent by late 1981. Chart 1 explains in more detail the progress of State assumption of the program. Although EPA will remain strongly involved, this delegation of responsibilities means that States will more and more bear the burden of day-to-day decisionmaking. It will be far more in their hands to insure effective implementation as well as to deal with causes of delay, and, concomitantly, their actions will require, to the extent possible, close oversight and scrutiny.

With that in mind, I would like to turn to a review of the program—its achievements, its problems, and its future.

Overall, the program has made significant advancement since its enactment in 1972. Of the more than $28 billion appropriated by Congress since 1972, we have awarded $24.2 billion in grants for approximately 17,000 projects throughout the country. That $24 billion includes over 1,862 projects which are complete, that is wastewater treatment facilities which are on line and operating and processing water. This represents $2.1 billion in dollars poured out to date for construction. The 6,956 projects currently in planning and design represent an additional need of $28 billion, $28.5 billion needed for construction over and above the $28 billion already appropriated by the Congress.

Therefore, when we obligate the current carryover of $3.9 billion, plus the fiscal year 1980 appropriation of $3.4 billion, there remains a pipeline need, taking the projects that are now in planning and design and deducting the money Congress has appropriated of $21.2 billion.

To give you a sense of the significance of what is happening today, and the rate at which this program is beginning to accelerate, we now have under construction, that is, concrete being poured today, $19.6 billion. If you look again at the roughly 7,000 projects that are being planned and designed, they represent, as I said, a pipeline need of an additional $21 billion.

Although we lack detailed multiyear monitoring data that would provide us with a comprehensive long-term comparative analysis of the total effectiveness of water cleanup, a very discernible trend of improved pollution control through municipal waste treatment

clearly exists. Some of these improvements have, in fact, been dramatic.

A decade ago, Lake Erie was one of the most tragic examples of pollution in the country. Massive algal blooms covered the lake with slimy green mats; fully 65 percent of the bottom water, because of the algae, was totally devoid of oxygen in the summer months. Today, thanks to municipal and industrial pollution controls, only 6 percent of the bottom water lacks oxygen, clear-water game fish planted in the lake can now survive, and beaches closed for more than a decade have been reopened.

In the late 1960's, the once beautiful Minnesota Lake Minnetonka's ability to restore itself was being destroyed by man-made overfertilization. Its waters were turbid with stinking algae, much of its surface was covered with green scum, and its muck-strewn bottom covered with a growing residue of rotting plant life. The lake was old before its appointed time; assistance by the construction grants program resulted in the phaseout of more than a dozen small treatment plants and the entire removal of treatment plant discharges from the Lake Minnetonka Basin. Now, these once dark and murky waters are transparent—fishermen can see the bottom. Its beaches and coves, once threatened by excessive algal blooms, are again attractive retreats for swimmers, nature lovers and sportsmen.

EPA has more than 70 examples of such cleanups in waters large and small, from Hawaii to Maine, and from Alaska to Texas. They prove the success of our cleanup efforts in areas where these efforts have been carefully monitored for a sufficient period of time. They are the result of industry cleanup, and they are the result of municipal cleanup through facilities that have now gone on line.

If you go back just a moment to the numbers that I was sharing with you a few minutes ago, we have only begun to see the impact of the municipal side of this program in terms of actual examples of cleaner water.

Let us turn to EPA's efforts to implement the 1977 amendments. These included a new focus on innovative and alternative technologies, special assistance to small communities, and the 205(g) State management grants.

The initial impact of these changes was to create uncertainty and instability in program administration which causes delay. There has been, however, a steady recovery in the rate of obligations. Chart 4 shows the slowdown. It also shows the rather rapid recovery this year, and the anticipated levels for next year. For the first time I am getting out of the program an obligation and outlay projection that is being tracked very closely by actual experience.

I would like to discuss briefly the progress in implementing the amendments.

Under section 205(i), a percentage set-aside of allotments is required to increase construction grants for projects utilizing innovative or alternative technologies.

This effort has been in operation for approximately one year and the results to date are for the most part encouraging. As of September 30, 1979, 132 projects had been approved with alternative technology, and 30 projects with innovative technology. The total step 3 value of the innovative and alternative portions of these

projects is more than $380 million. We feel this response by communities to the alternative and innovative technologies grants indicates the need and value of such assistance.

We are concerned, however, by the short lead-in time provided for this new program effort. For fiscal year 1979, $84 million was set aside to fund the increase from 75 percent in the Federal share. Projects have been approved which ultimately will use approximately 50 percent of the set-aside. Many of these projects are in planning or design, however, and will not utilize a large portion of the set-aside before September 30, 1980, at which time the fiscal year 1979 funds will be subject to reallotment. Our expectations are that this will be a one-time occurrence and we will see full utilization of the moneys set-aside for fiscal years 1980 and 1981 in most, if not all, States.

Under section 205(h), a 4 percent allotment set-aside is provided for States with a significant rural population to be used in developing alternatives to conventional treatment works for communities with populations of 3,500 or less, or sparsely populated areas of larger communities.

We have developed an aggressive program to encourage small wastewater systems. As of September 30, 1979, approximately 30 rural small communities have been awarded grants totaling $10 million for design and construction of alternative technology systems. Our priority list data identifies over 100 additional projects that will draw on the 4-percent set-aside funds.

Considering the time that can be involved in step 1 planning, we believe that this obligation rate for step 2 and step 3 grants indicates a successful approach to meeting the needs of smaller communities. Once again, we do face the problem of an insufficient startup period for planning and design under this program, with the end result that initial funds may be subject to reallotment.

The most significant impact of the 1977 amendments is the 205(g) provision which authorizes a portion of the allotment to be set-aside for funding State administration of the construction grant program. To date, 30 agreements have been signed with States delegating authority for administering the program. Another 12 agreements are now being negotiated. As shown in chart 3, this has entailed turning over 73 separate functions to the States.

The initiation of a delegation program in any State does not immediately relieve EPA of the primary program management responsibilities. Each delegation agreement constitutes an agreement that the State will assume the management of the program in accordance with an activity and date-specific schedule based on the capability of that particular State to assume the various program responsibilities. Several factors determine the pace at which activities are delegated, including level of State experience prior to delegation, the numbers and training of necessary staff, the State's ability to hire staff given salary levels and the job market, and the technical complexity and environmental sensitivity of the particular activity. The net result is that completion of a delegation program, from start to finish, may require from 2 to more than 4 years. As an example, chart 3 sets out New York State's schedule for assumption of responsibilities. In some case, the delegations are experiencing delay.

If you refer again to chart 2, you will note that New York State had planned to have 233 people on—board by October 1, 1979, but in fact, had only hired 105.

When the State assumes full responsibility for a delegated activity, EPA will continue to monitor a sample of the State actions to insure performance. In addition, there are a number of activities not delegable to the States which will remain EPA responsibilities.

Agreeing to accept the day-to-day responsibilities of the program is not an inconsiderable burden, and some States have refused to accept it. In part, this stems from an uncertainty on the part of the States that funds will be there to see the program to fruition. Another problem that surfaced under the delegation to California, one of the two States to assume full responsibilities to date, is that it feels the 205(g) funding level is not proving sufficient to meet its needs.

EPA is, justifiably, I believe, pleased with the progress in implementing these amendments. It is still early in the game for anybody to be patting themselves on the shoulder. But there have been overall improvements in a relatively short period of time, which I think are adding significantly to the efficiency of the program. We do however, continue to experience some delays.

For example, by 1977, all major municipalities were to have met secondary treatment standards; all major industries were to be using "best practicable technology." Yet, on July 1, 1977, only about 40 percent of major municipal dischargers had achieved secondary treatment; about 80 percent of major industrial dischargers were using "best practicable technology."

Now, a number of problems occurring at the startup of the program have contributed to the delays. Recently we have been faced with cutbacks in appropriations, in part because of the high unobligated balance in some States. This has had the effect of penalizing other States.

If you look at chart 4, you can see that obligations are increasing more rapidly than appropriations. Although there does exist a certain amount in carryover funds which will, for a time, fill this gap between projected obligations and appropriations funding, the overall perception by the States and local governments is that the funds are not being made available to see projects now being planned through to construction. States with efficient programs are already being hampered by the funding shortfall.

In addition to funding-related problems, the program has been beset with a myriad of implementation problems stemming from the need to coordinate some 54 Federal laws and Executive orders which must be complied with in any construction of a treatment facility.

Incidentally, these charts are all attached to my testimony which I submitted for the record.

Chart 5 lists general areas of Federal statutory requirements which impact the construction grants program. All of these can affect siting, design, planning, and construction of any treatment works and can result in delay and increased costs in meeting the Clean Water Act requirements.

In addition to these Federal laws affecting the program, many States and local laws and ordinances have requirements with

which facility planners must comply. These, again, can cause costly delays as necessary permits are obtained and special requirements met.

I will share with you one example which recently occurred in connection with a major sewer construction project.

This occurred on the Bay side of San Francisco in connection with a project involving sewer construction. Much of the area involved had been built up as a result of years of landfilling, some of which covered old boats that had been beached and left as worthless by their owners during the late 1980's. The antiquity of these boats brought the National Historic Preservation Act into play, requiring the full-time services of an archeologist, as well as a complete halt in construction activities each time a boat was encountered while its historical value was assessed and its preservation assured. Needless to say, this delay was not only costly in time, but also monetarily as the contractor's payments continued during these idle periods.

By my reference to this plethora of applicable Federal, State, and local laws, and to this specific example, I am not suggesting that there are "too many," or, indeed, that anyone should not apply—obviously each one reflects an important national concern. Further, not every law affects every project, nor does the time involved in complying with the requirements of any individual statute necessarily cause great delay, but the cumulative impact of responding to these laws has been a significant cause of program delay overall.

One other serious cause of delay occurs under the requirements for EPA headquarter's review of advanced wastewater treatment (AWT) or advanced secondary treatment projects with incremental costs in excess of $1 million.

Thus far, out of 64 projects retained for review, 38 are completed, and another 12 awaiting final action. The cost savings to the program, through preventing unneeded construction as a result of this review procedure, is not inconsiderable. Of those projects where review has been completed, we estimate $35 million has been saved on construction costs. Additional savings will be realized through reduced operating and maintenance expenditures. Regional review of projects has resulted in capital cost savings of $29 million, or 44 percent of the cost of advanced treatment in all projects submitted for regional review during the past 5 months.

While these savings are substantial, we estimate that project delays inherent in headquarter's review have increased original project construction costs through inflation by $93.6 million.

The headquarters has prepared a thorough methodology for review of advanced treatment projects. This methodology will be discussed with regional and State personnel in workshops in early December. We believe that it can be applied by the States and regions, and that the time consuming and costly headquarter's review can be eliminated.

I would like to mention one recent problem which has arisen, and which may be a potentially significant cause of delay in the program. This is the October 1979 recommendation by GAO that EPA fund 75 percent of the cost of wastewater treatment allocable to Federal facilities. This is contrary to the policy EPA has adopted and implemented since the act was in force, namely, that the cost

of pollution control allocable to major Federal facilities would be paid through direct appropriations. The GAO decision has already delayed projects involving Federal facilities. If EPA is required to revise its procedures to meet GAO's interpretation of the act, a point on which the act is silent, it could lead to a disruption of established State priorities for use of available grant funds.

Despite the delays caused by the inherent complexities of the program, by the inability to get timely decisions, and by implementation of changing requirements under the Clean Water Act, along with the 54 other applicable laws, our estimates now indicate an average completion time of 7 to 9 years, from step 1 through final construction. Chart 6 breaks down this time period by program phases. If we can hold to these schedules, we have the potential to achieve marked results in our pollution control effort in the next decade.

I have heard EPA compared with EDA, and I believe one other program, farmers home, from witnesses that have appeared before the committee, during these hearings. A significant difference between our program and those mentioned is that they do not count the application time, and processing time. Their figures stem simply from the decision to turn a spade until the time the project is completed.

So, if you compare them, you would find, I think, that the 6 to 8 years is about what you would expect today under Federal law for the completion of a major Federal construction project. I think there has to be a way we can cut that time, but given the laws, and given the complexities of these projects, it will be tough to find ways to cut that time period.

I do not think, frankly, that we will realize the full impact of this program, which is just now beginning to hit, for sometime yet.

For example, in terms of water quality, out of the $20 billion plus, that has been obligated, only $2 billion of that is processing wastewater right now, and $20 billion of that is under construction.

However, I think we are going to see, within the next 2 to 3 years, a dramatic change. Frankly, what worries me is that we must have continued stability, which we are now beginning to achieve in this program—it has been through one jolt after another, the 1972 amendments, the impoundments, the 1977 amendments, all these things have caused a stutter-step program.

Just when we are getting the program off its knees, and on its feet, the worst thing that could happen right now is for the Congress to lose faith in terms of appropriating money to carry through. We do not have, frankly, and I am saying this very strongly, because I honestly believe it, if we do not have funding levels far enough in advance that we can assure the States that it is reasonable to expect the projects that they are beginning to plan now will in fact be funded for construction, then I am afraid we will see another slowdown, and another set of delays.

There is some confusion among the States in terms of signals that they are getting on appropriations levels in this program.

For our part we are trying diligently to implement program elements that will bring administrative stability to the construction grants program.

No new program requirements will be applied to projects having step 3 grant assistance where construction is already underway or likely to be underway within 6 months of the grant award. We will avoid applying new requirements retroactively to projects in step 1 or step 2 funding unless they are essential to implement new laws or to correct serious deficiencies in the program.

An example of such corrective application involved the policy on funding of sewage collection system projects, issued in March 1978, to clarify the eligibility question of new collector sewers primarily serving growth as opposed to eliminating existing pollution problems which are the priority needs of the program.

This occurred with a project in South Pymatuning, Pa., where the retroactive application of our collector policy to a current project resulted in considerable cost savings to EPA and local residents.

The project as designed called for sewers to be constructed in the small village and throughout the adjacent rural area, connecting into a nearby interceptor sewer to carry the wastewater to a regional facility. The $4 million project involved a local share of $1.8 million, with resultant costs to the users of a front foot assessment of $1,100 to $110,000 per unit plus a tap-in fee of $500 each connection and approximately $200 per year sewerage fee. EPA and the Appalachian Region Commission were to bear the balance of the costs.

Our people who were assigned to evaluate the project design and municipal financing recommended that the sewers in the rural areas be deleted, thereby reducing the project costs by $2,200,000. The originally planned bond issue was setaside and a 40-year 5-percent Farmers Home Administration loan was obtained. Individual assessments were eliminated, and user charges were reduced to approximately $150 annually for each household.

All other necessary new requirements will be minimized and phased in to provide needed stability to the program.

In conclusion, let me return to a point I made earlier in my remarks—after the initial slowdown resulting from the mid-course corrections of the 1977 amendments, we have managed what I believe to be a remarkable recovery. We expect the present trend of obligations to continue upward, a positive sign that we are moving forward in achieving national pollution control goals.

Our efforts under the program are geared to insure that construction of projects in an environmentally responsible manner, and planning projects to meet the highest ecological standards and yet make them as cost-effective as possible. At the same time, we are building projects which are sensitive and responsive to the needs of the community.

We have accomplished these objectives while adapting to the changing realities of our times, such as energy conservation, inflationary costs of constructing and operating plants, and increasing public participation.

We have not achieved these accomplishments without difficulties—often significant difficulties resulting in costly delay. Earlier in this statement I discussed these problems. Although some of them are historic, let me emphasize that many of the factors which cause delay are here to stay, and as EPA has had to deal with

them, so will the States as responsibility for program operation shifts from the Federal to the State level.

Our expectations of what constitutes good or acceptable performance by the States should reflect an understanding of these problems with which they must now grapple. At the same time, we must look to the States more directly for accountability of their discharge of this responsibility.

Mr. Chairman, the committee has been very patient with my prepared remarks, and we thank you quite sincerely for the opportunity to appear before you this morning, and for the opportunity now to discuss the program with you.

Mr. MINETA. Thank you very much.

On page 9 you refer to a number of figures, and talk about the innovative and alternative portions of these projects. I was wondering how much of those are innovative and what percentage are alternative technologies?

Mr. COSTLE. If I may, I will ask Henry Longest to respond to that. We have the listing.

Mr. LONGEST. The key thing to be recognized here is the various stages that the innovative and alternative projects are in.

For example, there are 20 innovative projects currently in the design and construction phase; and there are 129 alternative-type projects.

This represents 6 percent of the set-asides allowed in the act for fiscal year 1979 for the innovative projects, and 18 percent of the set-asides for the alternative projects.

One problem we are having in the first year is getting the innovative and alternative projects through the complete process, since this is a new program. We do see a danger that some of the States will not be able to obligate their funds in the first year of the program.

We feel very confident that they will be able to obligate their funds in the second and third years, as allowed in the act; this will pick up and they will be able to utilize the total set-aside funds in the latter years.

Mr. MINETA. Also on page 12, you refer to the New York example of the 233 people planned, and I think 105 who are actually on board.

How many people did EPA have when it was running that program?

Mr. COSTLE. We have, I think, a total of roughly 900 for the entire construction grants program. Compare that, for example, with the Department of Transportation, which administers roughly the same amount of money, deals with essentially 50 clients as opposed to 15,000, and they have a staff, I think, of 4,500. EPA's engineers, who make up for the most part, the 900 people, perform a multiplicity of functions.

Mr Mineta. What about region 2?

Mr. LONGEST. Region 2 had probably 80 people in the grants program. The 60 on the chart are currently working with the State. The 80 that I refer to includes the technical side as well as administrative, processing grants, payments, et cetera.

Mr. COSTLE. We have actually offered more of our people, as I recall, to the States than they have, in fact, taken onboard; so that

we have actually offered to give them more of our people to help them gear up than they have in fact taken advantage of.

I think it illustrates an important point. We tend to forget that State government can be every bit as complicated as Federal Government; including State legislatures, State budget offices. And it can take time, as my own experience shows, to get the necessary approval within our own State governments, even if the Federal money is available to pay for it.

Very few State budgets will accept the premise that they don't have any say over how Federal Government money is spent. Nonetheless, some of these States—are, in fact, progressing by and large as aggressively as I think they can in obtaining the necessary support within their own State for what represents to them a major gearing up.

As you know, State salary structure is a lot worse than Federal salary structure. The universities are only putting out so many engineers a year. There is a pretty vigorous competition going on in this program between State governments, between State and local government, and between government and the private sector

So some States are experiencing real problems in recruitment, and their salary structures do not help. Some States will get theirs faster than others. But it has to be paced, if they are to do it responsibly, and if we are to be able to come back to you, as we must, every year, and say, it is working, or isn't working.

Mr. MINETA. Mr. Costle, you note that in addition to ongoing projects, we have completed 1,862 projects worth $2.1 billion which were initiated under the 1972 law. Does that $2.1 billion include just the Federal portion, or is that the total cost of the projects?

Mr. COSTLE. That is just the Federal share of those projects.

Mr. MINETA. And the 1,862 projects, do these involve the construction of wastewater treatment facilities as opposed to interceptors and collection sewers and pump stations?

Mr. COSTLE. It is both.

Mr. MINETA. And is there a break-out of how many of those 1,862 projects are actually wastewater treatment plants?

Mr. COSTLE. We can certainly get that for you.

[The following was received for the record:]

PLANT/PIPE DATA

Our rough estimate of the breakdown between plant-related and pipe-related projects since 1972 is 55 percent/45 percent. Data since 1972 does not enable us to break this down year by year, however, we are now beginning to track the breakdown and for the 1980 Needs Survey will have data on plant/pipe division for all projects funded as of January 1, 1978. These results should be available early in 1981. From that point on we will keep track of the breakdown for all projects as they are funded.

Mr. MINETA. What about the 106 urban communities, or urban areas, that you mention that have needs of over $50 million? When do you expect these cities to move forward with construction, and have you made an estimate on an annual basis of how much must be appropriated to meet these needs?

Mr. LONGEST. The interesting thing is—I would like to back up just a minute and tell you why we got into this particular analysis.

We are hearing back from various groups outside of the program that the need for the larger cities seems to have been satisfied, and

what are we going to be doing next. I think this stemmed from a great deal of discussion regarding multipurpose projects within EPA. The important point we want to make is that there is a large, unmet need remaining in the country, in our large metropolitan areas.

So we took the 265 standard metropolitan statistical areas, and said, let's use a cutoff of needs equal to $50 million.

We came up with 106. Basically, it is the top 106, and if you start from the top and go down, the needs in these 106 metropolitan areas just for secondary treatment alone is approximately $15.5 billion.

If we look at the total needs for treatment, that is, categories I and II in the Needs Survey, which is primary and secondary, and then any advanced waste treatment required for a particular stream, we are talking about approximately $22 billion.

So the point we are making is that when you compare the $22 billion out of our total needs for categories I and II in the 106 SMSA's with the total need of is $35 billion for treatment everywhere in this Nation.

A significant part, or roughly two-thirds of the treatment needs remains in our top SMSA's. Of that 106, 73 do not have the capability today of secondary or higher. Only 33 of the top 106 top metropolitan areas have the capability of secondary treatment or better at all treatment plants; and of the 33, not all are able to obtain secondary treatment continuously.

You further asked for the projection of when these funds would be needed. Using a projected priority list submitted by the States, which is a 5-year priority list, we took a look at the projections for these particular 106 metropolitan areas.

This is a rough estimate. We will be developing it further. For 1980, however, the estimated need is approximately $1.6 billion. For 1981, it is approximately $2.3 billion. For 1982, it is approximately $1.9 billion. For 1983, it is approximately $2.6 billion. And for 1984, approximately $0.8 billion.

Now I want to emphasize that this need strictly refers to the next 5 years projected for those 106. That will not satisfy the total needs for the 106, but for that 5 years, the total is $9.4 billion.

What it says is, there are many facilities that won't even be able to complete the needs until beyond the first 5 years of the program. For example, just in the last year, EPA entered into a consent decree with the city of New York for two of its major wastewater plants. The projections for completion go out 8 to 9 years.

Mr. MINETA. Mr. Costle, on page 8 of your statement, I note that your obligation rates are beginning to exceed appropriations, and if funding remains at the $3.4 billion level, that there will be a serious shortfall.

Earlier in your statement, on page 2, you note that there are almost 7,000 step 1 and step 2 projects which will require some $28.5 billion to complete.

If we continue along at the same levels of appropriations, and add in inflation, I suspect that you will soon have to stop funding new step 1 or step 2 projects, or postpone the funding of many step 3 projects, or both.

Is that correct?

Mr. COSTLE. That is a very accurate statement. Current inflation, in fact, and the time horizon, are probably the critical factors that should be considered in determining annual obligational authority.

For example, it will require 12 years to complete the $42 billion program at 5-percent inflation with a constant annual appropriation of $5 billion. At an inflation rate of 10 percent the time of completion increases to 20 years. And 16 years would be required to complete a $53.3 billion program at 5-percent inflation and the same level of funding. At a 10-percent rate the $53 billion program would never be completed.

I think it just underscores, that this is a complicated enough program. It is often hard to explain it. The numbers can lead you into webs of confusion.

But it just underscores to me that we are absolutely in the critical stage in this program. The two most important things we must have are administrative and legislative stability, and appropriations stability, and I think we are going to begin to see improvements.

Mr. MINETA. Mr. Cleveland?

Mr. CLEVELAND. If we want to be candid, if we continue at the present rate of appropriations, this program is going to sink down right out of sight.

You skirt around this, but seriously, in the face of the figures you have given us in your speech, you have to remember that all you asked for was $3.7 billion.

Mr. COSTLE. $3.8, and you gave us $3.4.

Mr. CLEVELAND. But $3.8 was not adequate to meet the needs of many of the States that have step 1, step 2, and step 3 ready to go.

Mr. COSTLE. That is correct. A lot of that has to do with the allotment formula, and the way we presently allot funds because not all—as this committee knows—not all projects are ready to go exactly at the right time, or at the same time.

So we don't have a lot of flexibility in managing that rate of obligation, strictly on the basis of project readiness.

Mr. CLEVELAND. If I have one criticism of your statement, it is that you skirt around this funding—you allude to this but you sort of skirt around it, and as to how serious it really is.

For example, you say, States with efficient programs are already being hampered with the funding shortfall. That is a reasonably accurate statement, but it does not really say what is happening.

What is happening is that those States that have the efficient programs that are being hampered—hampered is not a very strong word. They are being robbed. There is a breach of trust here.

They were told by your people, and they were told by the State people, to go through step 1, to go through step 2, to go through—get ready for step 3. They had their town meetings and the council meetings, and they raised the money and they are ready to go, and now they are being told by your people, and by the State people, you have to wait 2, 3, and 4 years, and at the end of 2, 3, or 4 years, will the magic of your regulatory process, probably the things they have already paid for, the step 1, step 2, up there on the shelf, will be outmoded.

That is not being hampered. I do not really think you are being fair to those States that have gone ahead in good faith relying on a

$6 billion authorization, and then $5 billion and $4 billion, and you come in at $3.8 billion.

What will you come in at next year?

Mr. COSTLE. We don't know. We are in fiscally austere times. I think this last year was the first time on record that the Congress actually reduced an administration request.

Mr. CLEVELAND. You know why they did it, because of those unobligated funds, and they did it because when I went over there to try to get them to stay at $3.8 billion, they said, we have figures that show that your State could only spend 60 percent of its share of that $3.8 billion; and I said, where did you get those figures? And they said, they got them from EPA; they were lousy figures. The figures were wrong.

At one time they were thinking of passing this year no money at all.

Mr. COSTLE. I think it is a combination of two or three things, frankly. One was the perception that there was a large unobligated balance, and this resulted in this being a "Why don't we pass year?" or a year that will give us on our total budget figure, a more favorable picture since EPA has money in the bank—what we have not been effective at doing, I guess, was educating people as to the way these projects develop, the time delays, the necessity of having the money in the bank in order to trigger things now at the local and State level which will result in moneys being spent a year and two years out.

Frankly, it is a legitimate problem that Congress is trying to come to grips with in a whole lot of areas. Life is complicated, and getting a dream in someone's eye to the stage of actually being completed is turning out to be a longer, more tedious process than anticipated.

In the meantime, the guy who is doing the planning and designing has to have a stable set of expectation that the money will be ready when he is ready for it.

We have changed the nature of this program, and rightly. I am not challenging that. But it has presented a credibility problem.

Mr. CLEVELAND. We have changed the program, and I know all about that. But the fact remains that the 1977 program had a $6 billion authorization, correct?

Mr. COSTLE. That is correct—$5 billion, I am sorry.

Mr. CLEVELAND. It was $6 billion at one time.

I am going back to 1972. Then the authorization was at $6 billion. But now you talk about changing the program. That authorization at $5 billion, what has happened to that? You only asked for $3.8 billion last year.

Mr. COSTLE. That was the amount that we felt the overall economy and budget situation which we faced——

Mr. CLEVELAND. You will admit—excuse me—for at least some States the appropriations at $5 billion should have been there.

Mr. COSTLE. Correct.

Mr. CLEVELAND. But you recommended $3.8 billion because of OMB and other considerations; but you cannot——

Mr. COSTLE. Valid considerations; absolutely valid considerations.

Mr. CLEVELAND. You say they are valid; I say they are killing the program. That is a difference of opinion.

But that is a change that you cannot lay on the Congress because you only asked for $3.8 billion.

Mr. COSTLE. You only gave us $3.4.

Mr. CLEVELAND. I say the reason was that you gave them figures that were not good.

Mr. COSTLE. I don't mean to be quarrelsome, because I think both of us care deeply about the program.

Mr. CLEVELAND What do we do to get out of this? There are some slow States and some fast. Does it make sense to have a two-tier funding system that will fund faster States as they can use it, and not fund slow States that will add to those unexpended obligations?

Mr. COSTLE. In principle, I couldn't agree more with you. In a practical matter, in working it out, we have some problems such as the possibility of two appropriations submissions. From our administrative point of view, I just have my doubts, frankly, that that system——

Mr. CLEVELAND. Do you have a better idea?

Mr. COSTLE. We are working to try to find a better idea. Because I think what you would accomplish with a two-tier system is exactly right; that is, we would not be penalizing States that are ready to go. And that, as you know, gets back into a complicated system of allotment formulas, and how carefully those were worked out in the Congress.

We are, in fact, working on proposals, and we have been, analyzing proposals that this committee is suggesting, and analyzing a variety of suggestions from the committee staff, trying to find one that will be mutually agreeable and that will work.

Mr. CLEVELAND. If you do not solve the problem—if we do not solve the problem of funding so you encourage the States to move ahead, and you do not penalize them by the drag of States that are proceeding more slowly; if you do not do that, your program will die.

Mr. COSTLE. I agree with you.

Mr. MINETA. Thank you.

Mr. Levitas?

Mr. LEVITAS. Thank you.

Welcome back, Mr. Costle. Nice to have you back to these hearings on an extremely important matter.

We have had some testimony about delays and the time it takes to approve the various steps of the applications for construction grants. And I wonder if you could provide the committee with information for 1977, 1978, and 1979, indicating the average time for completion of the step 1, step 2, and step 3 process?

Mr. COSTLE. We actually have those figures. Rather than my reading them, Henry, why don't you offer them?

Mr. LONGEST. Excuse me, are you looking for the total project processing time, or the processing time of just the application——

Mr. COSTLE. Each step, step 1, step 2 and step 3.

Mr. LONGEST. The application processing time for each step, in the last 3 years, this is within EPA, for fiscal years 1977, 1978, and 1979, I will give step 1 first: 84 days, 75 days, 85 days. Step 2: 100 days, 127 days, 122 days. For step 3: 87 days, 83 days and 83 days.

I might add here that this tracks very closely with the completely independent analysis done by the State of Pennsylvania. These

add up approximately on an average of 3 months, 4 months, 3 months. The State of Pennsylvania came up with 5½ months, 3 months, 3 months.

There are reasons for the differences, but I think they are close enough. I was pleased, I guess is the way to put it, that we were tracking very closely with what the State estimates were of our processing time.

Mr. LEVITAS. I have some figures which are at variance with these which I would like to furnish you. I do not have them with me today, but I would like to furnish them to you so you can explain why they are different.

I have obtained those figures also from EPA in connection with a speech I made to a group of consulting engineers in Atlanta, and I would like to point out why those figures are somewhat different.

The figures that I received were indicating that there is more delay during fiscal year 1979 than there was in fiscal year 1978 and fiscal year 1977 and that since the 1977 mid-course correction, there were additional delays.

I am really trying to relate the reasons for that.

Mr. COSTLE. We will be happy to examine those figures and respond for the record. One element of that will have to be AWT reviews, which have stretched the time out, because they do have to come all the way up to me.

[The following was received for the record:]

COMPLETION TIME FRAME IN MONTHS

| Year | Population size | | |
|---|---|---|---|
| | To 50,000 | 50,000 to 125,000 | Over 125,000 |
| Step 1: | | | |
| 1977 | 22 | 23 | 23 |
| 1978 | 30 | 35 | 29 |
| 1979 | 36 | 43 | 37 |
| Step 2: | | | |
| 1977 | 11 | 14 | 10 |
| 1978 | 16 | 16 | 19 |
| 1979 | 21 | 22 | 19 |
| Step 3: | | | |
| 1977 | 31 | 39 | 38 |
| 1978 | 34 | 35 | 37 |
| 1979 | 32 | 41 | 46 |

Several major reasons can be cited as explanation for many program delays from 1977–1979. Among them are:

1. Uncertainties and additional requirements related to the new law in 1977.
2. Requirements for compliance with the many laws and Executive Orders to which the program is subject.
3. Congressionally mandated Headquarters review of advanced waste treatment projects.
4. In recent years more grants have been for whole projects whereas formerly plans were often well underway with non-federal monies, and EPA grants just supplemented projects in later stages.

Mr. LEVITAS. One of the reasons we have been told by other witnesses relating to the delays they have been encountering is that there has been a retroactive application of policies and regulations by EPA to projects that have already received approval at

different stages, and they have been required to go back, putting aside AWT.

What is the reason for retroactive application of these policies? Why should they not be made prospectively, except in cases of health and safety?

Mr. LONGEST. Basically, they should be phased into the program. Let me give you an example that we are working with right now.

The Clean Air Act has a section 316 which deals with the compatibility and planning in the air program with the construction grants program. The amendments to the Clean Air Act of 1977 said that we will consider the impacts that a sewage treatment facility has on growth in an area to the impact that it has on the air quality of that area.

It is a very specific requirement in that act which we have to incorporate into projects under the Clean Water Act. If we took that to an extreme, we could go back to step 1 planning of a project currently in step 2 or step 3. That would be an extreme. I don't think that would be the right way to go.

But nevertheless, my point is that the requirement is there in the Clean Air Act that we do just that.

These are the types of cases we face. Many times we are forced to go back retroactively as a legislative requirement.

Let me go to another example that you are probably more interested in.

Mr. LEVITAS. Let me stop you right there. It is my guess, and Mr. Cleveland made this point yesterday as well, that a lot of these delays resulting from retroactive application are the result of legislative rather than administrative policies.

I think it would be very useful to the committee to have some type of list or information provided so we can make the judgment.

Frequently, as Mr. Cleveland said yesterday—he gets very upset about some delays and some retroactive application only to find out that 2 years ago you voted for the bill that caused this.

We did not realize this would be the cause of it. If we got some insight into that type of situation, there could be some legislative correction. That would then leave those results from administrative delays, and we could hone in on EPA.

I wonder if some kind of analysis could be provided?

Mr. LONGEST. Yes, sir. In the attachment to Mr. Costle's statement, there is a complete listing of the 54 requirements, both legislative, executive orders, et cetera, that affect our program.

And on the major acts, there is a short synopsis of what the act is.

We will go to the next step and tell you for the record the actual implementation requirements.

[The following was received for the record:]

EPA IMPLEMENTATION OF SELECTED LAWS

NATIONAL HISTORIC PRESERVATION ACT

The Advisory Council on Historic Preservation has promulgated detailed regulations outlining procedures agencies should follow to meet their obligations. EPA must take the following steps, as early as possible in the decision-making process in order to comply with the requirements of Section 106 of the Act:

1. Identify or cause to be identified any National Register or eligible property located within the proposed undertaking's area of potential environmental impact that may be affected.

2. For each property identified, determine whether the undertaking will have an effect on the historical, archeological or cultural characteristics of the property that qualified it to meet the National Register criteria. Determinations of effect should be undertaken in consultation with the State Historic Preservation Officer (SHPO). In making determinations, Agency officials must use the criteria established by the ACHP and outlined in 36 CFR 800.3.

3. If EPA determines that there is no adverse effect on a property, the Agency must provide documentation of the determination to the Executive Director of the ACHP for review. If the Executive Director does not object to the determination within 30 days of receipt of adequate documentation, the Agency will be considered to have satisfied its responsibilities under Section 106 of the Act. In making its determination, the Agency must see the criteria of adverse effect found in 36 CFR 800.3.

4. If EPA determines that there will be no adverse effect by the ACHP does not accept the determination, then the Executive Director may specify conditions that would eliminate the objection. If the Agency official agrees to these conditions in writing, historic preservation requirements are met.

5. In cases in which the Ahency determines that an adverse effect will occur or in which the ACHP does not accept a determination of no effect, a case report requesting ACHP comments must be prepared and the consultation process outlines in 36 CFR 800.6 must be undertaken. The consultation process involves the responsible Agency official, the SHPO, Executive Director and other interested parties who maybe invited to participate. The process may include on-site inspection and public meetings. After reviewing the project, the consulting parties attempt to agree on alternatives to avoid the adverse effect or measures to mitigate the adverse effect. If the parties agree on measures to be taken, or determine that there are no alternatives, they must execute Memorandum of Agreement (MOA) outlining their agreement. Agency officials are required to prepare a proposal for inclusion in the MOA outlining the parties' agreement. This proposal becomes the MOA if not objected to by the Executive Director and is forwarded for Council approval. Once approved, the MOA should be included in the final EIS. Subsequently, the Agency official must report to the Executive Director on the Implementation of the MOA. If parties fail to agree after consulting, the Executive Director may recommend the matter for consideration at a full Council meeting.

6. If the Council decides to consider an undertaking, the chairman may designate a panel of five to hear the case or schedule it for consideration by the full Council. After consideration, the council will issue written comments which should be included as part of the EIS. The Agency must consider these comments in reaching a final decision on the project and must report actions taken in response to the comments to the Council.

## Uniform Relocation Assistance and Real Property Acquisition Policies Act

The URA and RPAP Act requires uniform and equitable treatment of persons displaced from their homes, businesses or farms by Federal and Federally assisted projects and it establishes uniform and equitable land acquisition policies for these programs.

### ACQUISITION OF REAL PROPERTY

1. Before any initiation of negotiation for the acquisition of real property, there must be at least one appraisal on each tract of land.

2. The Agency must provide a written statement to the owner of the basis for the amount estimated to be just compensation.

3. Simultaneous with the just compensation statement, the Agency must make a fair market value offer and any owner-occupant must be furnished written explanation of their rights under the Act and Agency regulations.

4. The displacing agency must keep a record of information concerning acquisition of any interest in land.

### RELOCATION ASSISTANCE

1. Ahy project resulting in the displacement of any person must not be approved by the Agency until it has determined that fair and reasonable relocation payments will be provided, a relocation assistance program is offered, the public has been adequately informed of the relocation assistance, comparable replacement dwellings will be available and that replacement housing meet all of the criteria of 40 CFR 4.301.

2. The Agency must establish a relocation assistance advisory program.

3. The Agency must furnish the appropriate HUD area office with information regarding the project and consult with that office and local officials.

4. The Agency must designate at least one representative to coordinate its displacement activities with other agencies in the affected areas.

### FEDERALLY ASSISTED PROJECTS

1. The EPA will not approve a grant contract or agreement for an EPA assisted project until the State agency provides assurances that the policies and procedures outlined will be followed.

2. The EPA will monitor on a continuous basis, actions taken by State agencies in relation to assurances given for EPA assisted programs and projects to insure conformance.

### ENDANGERED SPECIES ACT

Section 7(a) of the Endangered Species Act requires Federal Agencies to insure that any actions they authorize, fund or carry out do not jeopardize the continued existance of species listed as endangered or threatened and do not adversely modify their critical habitats.

1. Each agency is required to determine if any project may have an effect on a listed species or its habitat.

2. The Agency is required to make a written request for a formal consultation with the Fish and Wildlife Service or the National Marine Fisheries Services for a review of any activity that may have an impact.

3. The Agency has the responsibility to conduct all appropriate studies and to provide the information necessary for an adequate review by the Region. The region will review the activity to determine if the project will have an adverse effect.

4. This consultation procedure must be reinitiated if any new information reveals possible impacts, the activity is modified or a new species is listed and may be affected by the project.

The 1978 Endangered Species Act Amendments establish a procedure to exempt certain Federal activities from Section 7(a) requirements:

1. Applications for Exemption must be made by a Federal Agency, Governor or persons whose license or permit application was denied due to 7(a) considerations.

2. Applications must be directed to the appropriate Secretary (Commerce or Interior), who determines if the application is properly presented.

3. A review board is established to consider the application. The board must publish a notice of the application and planned procedures in the Federal Register. Review and determinations must be completed within 60 days unless an extension is mutually agreed upon.

4. A negative finding by the review board constitutes a final agency action. If a positive determination is make, a report will be prepard by the board and submitted to the Endangered Species Committee for determination.

5. The Endangered Species Committee must make its final determination on exemption within 90 days of receiving the board's report, and publish its decision in the Federal Register as soon as possible.

### DAVIS-BACON ACT

The Davis-Bacon Act requires the payment of prevailing minimum wages and fringe benefits to laborers and mechanics working on Federal and Federally assisted construction contracts in excess of $2,000. U.S. Departmernt of Labor regulations require the following compliance procedures:

1. The responsible agency officials must submit a standard form 308 to the Department of Labor, indicating the specific classification for which wages are needed.

2. Any classifications not listed in a wage determination must be classified in conformity with the wage determination. If this cannot be agreed to by the contractor and EPA, the dispute must be referred to the DOL.

3. Clauses outlining a contractor's responsiblities under the Act must be included in all contracts. In addition, Federal agencies must examine payroll records submitted by contractors and conduct investigations as necessary.

4. Contractors must post wage determinations at the work site in a prominent place and submit a copy of payroll records and a statement of compliance each week.

COASTAL ZONE MANAGEMENT ACT

The Coastal Zone Management Act requires that all Federal activities in coastal areas be consistent with approved State CZM programs, to the maximum extent practicable. Federal agencies engaged in program affecting coastal zones are to cooperate and participate with State, local and regional authorities to preserve, protect, develop and where possible, to restore and enhance coastal zone areas.

The Office of Coastal Zone Management has published specific procedures to be followed by Federal agencies conducting activities that significantly affect a coastal zone area.

1. The Federal assistance applicant submits an assistance application and notifies the State CZM agency of the application (A-95 process).

2. The State agency reviews application for consistency with State CZM program. If it has no objection, the Federal action continues normal processing of application.

3. If there is an objection the State agency notifies the applicant, EPA and Assistant Administrator and a consultation process is begun.

4. If the parties cannot reach an agreement, either party may seek the Secretarial mediation services of the Department of Commerce.

5. The applicant, State and EPA submit for consideration their views and supporting materials. A public hearing is held in the local area concerned followed by a mediation conference among the parties.

6. The Secretary determines that there is inconsistency and EPA may not approve the application, or the Secretary finds consistency and the normal application process continues.

I would like to make one further point if I may regarding the cases where we felt they had to be retroactive such as AWT. The Congress put that on us. That is a requirement that we had to do.

Just prior to that, and during that particular exercise, we found cases where smaller communities had to pay sewer hookups that were really beyond their means. I guess it goes back to 5 years ago, and a show on "60 Minutes."

The point I am making is that we did get to a point where there were significant charges to communities that they could not afford. Communities could not start from scratch, add a sewage treatment facility and then pay the bill in the end. It forced us into a new situation of having to review projects carefully to minimize costs. Congress followed along with AWT review and a requirement to consider innovative and alternative technologies.

So the point I am making, the retroactive requirements, and the AWT reviews, were based solely on the concept of what is the cost to the local community and can they afford it.

Mr. LEVITAS. I am going to get into the AWT question in a little bit more detail in just a moment.

That leads me into the next area that I did want to talk about, which is the innovative technology. This is just a personal observation.

It seems to me that there has not been enough accomplished in this regard, that for the most part we are seeing major facilities using technology that has been around for 50 years.

The increase from 75 to 85 percent for innovative technology did not seem to have worked, because the major shift is that some of us would like to see us moving into 20th Century and 21st Century technologies.

But specifically, I do not see any incentive to consulting engineers to propose innovative technologies. There is funding to the municipalities, but not the consulting engineer, who many times makes the decision for the municipalities to begin with.

They know they can reach up and pull off the shelf what they have been putting in for 25 or 30 years, and the thing will work;

and they do not have to worry about lawsuits and effective operation.

But if we are going to move into innovative technologies we have to give some incentives to the engineers themselves, to take the risks.

Do you have any thoughts or suggestions, or am I misperceiving the situation?

Mr. COSTLE. I think you are basically correct. There is the 100 percent fallback for the communities. But it is interesting, depending on who you talk to. The equipment supplier is concerned because there is so much innovation going on and so many suppliers. They make the point that some of the newer firms in the business cannot stand behind their work, in other words, put a new device on and 5 years later it does not work; or it does not work at startup.

So there is a lot of pressure to go with what is tried and true. This is why Congress provided the incentive of additional 10 percent funding for innovative projects.

There also is a tremendous concern in the communities increasingly as we get more experience with what works, and not wanting to go with too much of a space age approach for fear they will wind up with operating and maintenance problems that will swamp them.

There have been enough examples of that occurring so there is a general tendency on the part of communities to hesitate and say, we do have to consider energy and the cost of the operation of these plants, and by and large, the proposition 13 mentality in the local community level affects this. It tends to stifle interest in innovation, go with the tried and true.

It also tends to slow down the whole process as people pause and try to be more thoughtful.

So it is a mixed thing; but certainly I think you are correct

Mr. LEVITAS. That is another point that you must make. One of the reasons that engineers and municipalities do not want to propose innovative technologies is the fear that someone will say, someone in EPA will say, do we want to go with this? We know how to deal with tried and true. But they fear another delay coming along.

You leap into a very, very important point, and that is this: To what extent should life cycle costing become the criterion for considering the approval of projects? To what extent should this now become, in terms of operation and maintenance costs to local communities, energy costs, and the like, as opposed to the initial capital outlay?

Mr. COSTLE. I think life cycle costing ought to be the way we deal with this, and that is our basic policy. I think one of the valid points of this program, early on, was that it was presented to a community in piecemeal fashion, and no one was sure of what the next installment would be.

So we have been pushing life cycle costing. That also has some problems inherent in it. I don't think those problems outweigh the value of it; but one of the problems is, that you find sometimes they are coming in with more expensive capital costs with the realization—or expectation—that they will get a much more favor-

able, essentially, rate of return. And that is going to present us with problems in the eligibility area, and it is how much—if a sewage treatment plant, for example, wants to process the sludge with municipal refuse, and generate energy to drive a plant, which makes a lot of sense, how much of that is eligible cost under the clean water amendments? How much of the Federal money, which is designed for the pollution control segment, should also be allowed to use for energy recovery? What do you do to the total pot of money if you open the door for those projects on a routine basis?

In effect, your pot of money shrinks in total number of projects you can do.

I think we are moving in the right direction to life cycle costing. But I know it will bring me back up to you folks to say, give me guidance as to how much we should pay out of this pot of money.

In a way, that is a nice problem to have, but it does not make it easy to solve.

Mr. LEVITAS. I know my time is up, and I will reserve my other questions until the second round.

I think there is one point that needs to be finished. You have indicated that you will have to come back up here to do it. What is the Federal procurement requirement insofar as life cycle accounting? In other words, can you do it, or do you not have to award it to the lowest bidder on the initial capital outlay?

Is that a problem, and what specifically is EPA doing now, and what specifically would you recommend in the future to bring life-cycle costing to a reality, rather than as a matter of discussion among all of us elitists.

Mr. LONGEST. I would like to answer that, if I might.

The regulations that deal with evaluation of alternatives in the step 1 facility planning stage require that the alternative selection include life-cycle costing of each facility that is considered.

So the life-cycle costing is a part of the cost-effectiveness evaluation, to determine which alternative should be selected. That does not directly affect the procurement.

For example, if it is determined that there is an innovative project, that project can proceed through sole-source type of procurement, because it is innovative.

So I think that is an important point that is missed. We are making allowances for innovative type projects. There are two incentives for the engineers in addition to what Mr. Costle mentioned.

That is, if an engineer comes up with an innovation, he has a market advantage on that. The second thing is that there is a 100 percent guarantee on innovations. If it fails, the Federal Government will pay to correct that. The engineer does not have to.

One third point we are considering is additional incentives in terms of percentages on his fees, in addition to coming up with innovative type projects.

Mr. MINETA. Thank you very much.

Mr. Stangeland?

Mr. STANGELAND. Thank you very much.

First of all, I would like to start with a little sugar, before we get to the vinegar.

I want to thank you and your staff, and commend your staff, for the assistance you have given me in the past few months on a problem that we had in Minnesota. I think I had a really serious problem, and we could not find out what was happening. We had to convince Mr. Cahill where it was, and once we convinced him, he moved swiftly to try and resolve it.

I think EPA has its feet on the ground, and moving. But we have another problem.

I am concerned about this delegation of responsibility to States, and wondering how it is going to work in the final analysis—because it just seems to me that a regional man can be a logjam to local communities. You people down here apparently are not aware of this.

I am wondering if you ever review requests that smolder and sit for a long period of time with no results. We saw a press release on Beaumont, Tex., $610,000 expended and no action. I am wondering how you become aware of that and say there is something wrong here?

Here is a project that is laying in limbo and going nowhere and we have to move on it.

Mr. COSTLE. We do operate on a principle of decentralizing authority as much as possible. And that, of course, also squares with the Cleveland-Wright amendment which says, go even further in giving it to the States.

The question then is: Do we have an adequate system for retaining control so we know where logjams occur, and we can move in if necessary?

We have set up a troubleshooting kind of capability within the Office of Water Program Operations for that purpose. Most of the business that comes essentially comes from Members of Congress or comes from the communities themselves, where somebody says, I think we have a problem.

And invariably, as we get down to look at it, there is more than meets the eye. And like anybody—a group of four people at the scene of an accident, each one is standing on a different corner, there are four different versions of what has happened.

It sometimes takes a long time to clear it up.

Mr. STANGELAND. I realize if the State is going to work on a project, the regional man and you will go over every step. I think there is a lot of duplication.

Mr. COSTLE. I think you are correct. Projects should not just languish. There should not be stalemates. We ought to have a quicker way to resolve those issues, and if it is something that cannot be resolved—this will get more complicated, because there is pretty strong disagreement between communities and the State, and that is where some of the hangups come in.

But we need to move faster to identify those.

Mr. STANGELAND. You say what you have done in Lake Minnetonka, but it is far better to preserve clean water than to go in and clean up dirty water.

You state that the delegation process requires EPA monitoring of a sample, and I am wondering how large a sample, and if this kind of monitoring will catch this type of project that languishes with no movement?

Mr. COSTLE. I suspect that we are going to need a system for more direct communication when problems arise.

The whole purpose of the Cleveland-Wright amendment was to really get the EPA out of duplicative review of the States. We should not be given any more demands. We should not be doing detailed engineering reviews if in fact the State is doing them and doing them in a way that is audited, and in a way that Congress can be assured that it is handled properly.

One of the ways that we will manage that, in order to be able to come back and provide oversight information to you, is with a sample audit. We will also go back and audit every project after it is done.

But in terms of actually riding on their shoulders, and doing a concurrent review, that will have to be on a selective basis.

Mr. LONGEST. May I add something? As part of the delegation agreement with the State, we do negotiate an audit process. In other words, in addition to the audit Mr. Costle just referred to, that is the closeout audit, which is required in all States, we agree with the State in the delegation agreement, that maybe 10 percent, or maybe 1 out of 20 projects will be reviewed by EPA for compliance with program requirements. This is a technical audit.

Mr. MINETA. Will the gentleman yield?

Let me just ask, once delegation takes place, where does the ultimate legal responsibility rest? If someone wants to sue for failure to comply with the law, do they sue EPA?

Mr. COSTLE. They will sue EPA. They will certainly sue me. I think legally that is—that is the legal answer as well. But, in addition, they would almost certainly bring other people in as defendants, too. We are talking about coming out with more sophisticated ways to oversee this program.

I think EPA is becoming more of an overseer as opposed to a hands-on manager and your role, of course, is always oversight, but we are going through an evolution.

Mr. STANGELAND. From what I see, EPA has a chance to get a handle on projects that are begun and then are dead in the water. That does not stop the problem of a project that gets off the ground. There is a problem that we have not been able to get off the ground, but it is not only in EPA.

With the State responsible, the State condemned that sewage system up there and yet I do not think the State has played its role; in other words, the State did not come to you and say we have a problem, we are not getting anywhere.

Apparently, in those instances, it is required for those people to come to a Congressman and they have to work with you. Could the reverse also be true because it just came to my attention that EPA is now running into a problem with the State DER's, I would hope that your people would come to the Congressman and say this is a very fair request.

Mr. LONGEST. I would like to add one thing here.

We have just reinstituted a management system and it will begin this fiscal year. It has begun. In that management system, and tied to the delegation with the State, they will provide certain information. That is referred to as the GICS system.

In the step 1 planning, to do exactly what you said, we have said that a project that has been in step 1 for over 18 months, we should go out and look to see what the problem is. In a review of applications, we say if a project has been in EPA over 90 days, it is flagged and you go back and ask why is it in there?

So we have instituted a national system. It is fully effected for this fiscal year.

Mr. STANGELAND. In your statement you say you are strongly involved to describe EPA's role in the program where the delegation of construction grants is executed. We have heard from several States the complaint that EPA continues to second-guess decisions certified by them. I am wondering how involved "strongly involved" is.

Mr. COSTLE. I think it will vary. I have people in Regional Offices who spend a good part of their professional careers reviewing. They ask me if there is life after delegation. I say we have a pretreatment program to implement. We had horrendous O. & M. problems. We have other things to do. I hear from the States in some instances that we are not getting enough out of their hair when we make a delegation. In other instances, they also admit it will take us a year to work out a transition. We are assuming a lot more responsibility. We have a couple of States that when we look at it, we are not sure we want it. That makes my planning very difficult because I do not know how many people to keep on what in a regional office.

It is a give and take. In some instances, we are meddling too much and, in other instances, we are not meddling enough. We will have to work that out, hopefully, using a benchmark of commonsense.

Mr. STANGELAND. I am probably as strong an advocate of States' rights and local determinations as anyone on this committee, and I am sure there are many advocates of that philosophy.

Another problem I see, and that is the unwillingness to make decisions that might not be totally palatable to everyone. There is always opposition to what you do, right?

Now, we are talking about this problem and there is opposition that is very vocal. I see a sense of vacillation on the part of the State and the local regional EPA people because they do not want to make the hard choice and say this is the best for you and this is what it is going to be. Someone has to make that choice. You cannot just continually bounce around and back up.

Mr. COSTLE. I think there is a lot of that that is endemic to Government today. If there is one thing people in Government fear most, it is making a mistake because someone just smacks the hell out of them when it happens. It tends to breed a caution in the system which, on the one hand, can be healthy if you save $35 million but, on the other hand, it can be viewed as obstructionism. I think you put your finger on a very important point.

Somehow we have to—I think this applies to Government as a whole—we have to get field people on the scene with courage to use their own commonsense and bite the bullet without wanting to hide behind a rule book, and there is no rule book that you can write that will anticipate every problem you find.

Mr. STANGELAND. A good Government servant does not want to make a mistake. There is an old saying, the man who does nothing makes no mistakes.

I am advised my time is up. I will yield now and thank you very much.

I have one more question if I have time.

Mr. MINETA. We will try to squeeze it in.

Mr. Costle has to leave at 12:15.

Mr. FARY. Mr. Costle, I have a letter, dated July 26, from EPA to Senator Muskie concerning action to be taken by EPA to avoid retroactive application of program regulations.

On page 2 of this letter you note that, and I quote, "In order to deal with the problems administratively, I will instruct the program that no new requirements are to be applied to a project with step 3 grant assistance where construction is underway or likely to be underway within 6 months of the grant award."

What I would like to know, in addition to whether you have actually issued a program requirements memo, is whether this step really does any good. Testimony given to the subcommittee yesterday indicates that by the time a step 3 grant is made, it is really too late, that the real impact of retroactively applied regulations is felt on steps 1 and 2.

Are you issuing any guidance on the retroactive application of regulations for step 1 and step 2 projects?

Mr. COSTLE. On steps 1 and 2 we have not yet. On step 3 we have asked for the regional offices—and several States—to give us some comments on a draft. We also have established a policy for step 1 and step 2. The only retroactive changes that we want to see are where there appears to be a major project deficiency, where commonsense will tell us something should be changed, and those requirements that are absolutely required by the law, that is, where our lawyers say you are legally vulnerable if you do not apply them.

Having run a State program and having projects that got caught in the Nixon impoundment, and then having to go back and retrofit them, I am aware of the problems and wish to avoid them. But I have to assure you that where you legislate a requirement that is to be administered, then we are not, in the name of retroactivity, letting projects go through without applying those requirement. There is an element of judgment involved.

If you have specific grant situations, I will be happy to sit down with you and together we can make sure how this thing is working.

Mr. FARY. Will you submit those for the record?

Mr. COSTLE. Be happy to.

Mr. FARY. Thank you very much.

[The following was received for the record:]

[Draft]

CONSTRUCTION GRANTS PROGRAM REQUIREMENTS MEMORANDUM, PRM No. 80-

Subject: Restriction on Retroactive Application of Policy.
To: Region Administrators.
From: Douglas M. Costle.

*Purpose*

The purpose of this memorandum is to explicitly restrict the conditions and circumstances under which it will be EPA Headquarters policy to apply regulations

and other guidance retroactively. EPA Regional Offices should also adhere to this policy in issuing their guidance.

*Discussion*

Stability in the Construction Grants Program and the minimization of delay are necessary for timely progress towards meeting the pollution control goals of the Clean Water Act. At the same time, Federal, State and local interests all require a minimum level of quality in facility planning, design and construction. Quality is the satisfactory assurance that the recommended alternative represents the most cost-effective means to meet the needs of municipalities in resolving present water pollution problems.

Periodically, EPA issues regulations and Program Requirements Memoranda (PRMs) as policy directives for the Construction Grants Program final regulations. A small part of the policies issued have retroactive application. Retroactive application means impacting a wastewater treatment project that has received a Step 1, 2 or 3 grant. While retroactivity can slow selected projects and cause fluctuations in the rate of grant awards, if a project is technically sound to begin with, retroactively certainly does not entail beginning anew, and the project should not suffer any undue delay.

However, because some part of program delays and disruption may be attributed to retroactive policies, EPA believes it useful to clearly delineate the circumstances under which policies will and will not be applied retroactively.

*Policy*

No new Program requirements will be applied to projects having Step 3 grant assistance where construction is already underway or likely to be underway within six months of the grant award. New requirements will not be applied retroactively to all other projects unless they are essential to implement new laws or to correct serious deficiencies in the program.

Where new laws do not mandate retroactive application, or make it optional with the implementing Agency, every possible opportunity for phase-in of new requirements will be utilized.

The serious deficiencies in the program where retroactivity policy may be imposed are as follows:

1. *Endangerment.*—A current practice has given rise to a presently dangerous situation with regard to safety or health.
2. *Long term public health.*— A current practice that clear documentation shows will, at some time in the future, give rise to a public health problem.
3. *Cost savings.*—Evidence clearly indicates that substantial cost savings can be obtained in on-going projects.
4. *Energy efficiency.*—If mandatory conservation measures are imposed by the President.

The grants program from time to time prepares policies which may potentially provide major benefits for the grantee. An example is the policy implementing Step 2 and 3 grants as authorized under the Clean Water Act of 1977. These policies will not be mandated for all grantees retroactively unless they meet one or more of the criteria outlined above. They will, however, be promulgated so that grantees may take advantage of them at their option.

*Implementation*

EPA Headquarters will implement this policy for all regulations, PRMs and other policies affecting the grants program issued after the date of this memorandum. The Regions are expected to follow it for all guidance formulated after this same date. (Issuance in final form expected in early 1980.)

Mr. MINETA. Mr. Clinger?

Mr. CLINGER. Thank you very much.

Over the last couple of days we have heard a lot of fairly derogatory comments about the role EPA has played in delaying projects, in contributing to the time it takes from the inception of the project to step 1 completion.

I note on page 18 you have done a study of delays and attribute 22 percent of the delays to grantees, 20 percent to architectural/engineering, and 14 percent to the States. That adds up to 56 percent.

Can I assume that the other 44 percent would be attributable to EPA?

Mr. COSTLE. Or to the Congress. I think, frankly, it is a complicated enough program with enough projects that for a meaningful analysis you have to look at each project. There are probably different reasons.

My experience has been that the vast majority turn out to be for sensible reasons. You can add days by not getting people together in a room fast enough. There are always going to be cases in a program of this size where you get a horror story, and because it is a big program and it is impossible for us to be everywhere at once, we all tend to want to generalize the horror stories.

For what it is worth, from my own experience, there are really precious few of those, and it turns out that the only way you ever get to the bottom of the thing is to look at it project by project.

Mr. CLINGER. We have a picture here of files sitting on desks gathering cobwebs because no one is looking at them, both in the regional offices and here in Washington.

I gather you would deny that. It is not a problem, they are processed in due time. It is just the time that is required.

Mr. COSTLE. I think that the figures that Mr. Longest provided about the average processing time is encouraging given the magnitude of the project, the cost of the project, the complexity of the laws and the system. At the same time, if you are a State engineer living in Hartford, wondering where the hell that project is up in Boston, it does not take much frustration for you to see in your mind the room filled with files and cobwebs. I have been there.

Mr. CLINGER. Let us narrow this down a little bit. We have heard different time scenarios, ranging from, I guess, 7¾ years, and one gentleman talked about 10 to 15 years. The best case scenario has been that it could be reduced to, 5 years processing time. A number of suggestions as to how we might reduce the time have been put forward and I wonder what your opinions are of these. Specifically, there was a situation that we would combine steps 1 and 2 which would result in a substantial reduction of time.

Second, let me get the other one on the table. The second suggestion was that we might speed up the overall process of project approval by combining steps 2 and 3 for projects up to $20 million.

I wonder if you could comment?

Mr. COSTLE. Both would require legislative change.

Mr. CLINGER. Would you favor such a change?

Mr. COSTLE. I would like to think a little bit about that and respond for the record. Any response now would be off the top of my head. My instinct is that it would add one more complexity while we are going through the process of State delegation--and yet I would not want to reject the idea out of hand.

[The following was received for the record:]

COMBINING STEPS 1 AND 2

Construction Grant Program regulations describe three of the main tasks of Step 1 Facilities Planning as a systematic evaluation of feasible alternatives, an environmental review, and the selection of the alternative that is cost-effective, i.e., "the most economical means of meeting established effluent and water quality goals while recognizing environmental and social considerations." 40 CFR 35.917. These tasks must be carried out in a context that will assure adequate public involvement and result in agreement among the Federal, State and local parties involved on the course of action selected.

To award funds for design when awarding a planning grant would be premature. Combining Steps 1 and 2 may inhibit a full consideration of alternatives—particularly innovative and alternative technologies—and lead to the selection of an alternative that is not the most cost-effective.

Effective Step 1 planning is key to the success of the Construction Grants Program. There are a number of program requirements that must be addressed in facility planning, therefore it is important to allow for facility plan review to insure compliance. This avoids costs and delays associated with situations where plans and design are completed and then it is discovered that some basic program requirement has not been met.

Overshadowing all of these considerations is the fact that it is impossible to determine what is a reasonable design grant when planning is not yet done. In fact, in some cases, the results of Step 1 planning may be that little or no design and construction is needed, but rather that modifications in operation are all that is necessary.

The facility planning and design processes have different orientations, and the latter cannot be determined until the former is complete. Design funds should not be committed until decisions have been made on what is to be built, where it will be built, how it will be built, and when it will be built.

### Two Plus Three Grants

When the Congress enacted the 2 + 3 grant procedure it was viewed as a simplifying, progressive measure that would provide substantial benefits to municipalities of 25,000 or less. These benefits would be both in cost savings and in acceleration of construction, with one less grant application process and its related delays. Many communities which have taken advantage of this procedure have reaped such benefits.

Because the 2 + 3 program was enacted with eligibility tied to a fixed dollar ceiling of $2 million ($3 million for high cost construction areas), and there has been a substantial annual increase in project costs due to inflation, fewer and fewer formerly eligible projects can fit within the current ceiling.

To counter the effects of inflation and allow continued utilization of this procedure by the originally intended beneficiaries, EPA recommends an increase in the dollar ceiling at least equal to the inflation rate since enactment. We are analyzing the impact of more liberal cut off levels, and our actual dollar recommendation will be based on the results of that analysis.

An increased eligibility ceiling need not adversely affect a State's annual allotment and its ability to fund other separate Step 3 grants. The additional sums of money for construction that would be awarded with the design grant are not significant in terms of total annual allotments. In addition, in keeping with the intent of the procedure, a new eligibility ceiling would not be set so high as to invite grantees with large projects to break them into a number of smaller ones in order to utilize 2 + 3 grants.

Mr. Clinger. I would like to have your thoughts for the record because there is an indication that this would fairly substantially reduce the processing time if we could combine steps 1 and 2.

In the last few days, I have been inquiring as to the possibility of using certification in a number of these areas and you address that in your testimony. I am somewhat familiar with the LPW program and how that was handled, and I am aware that projects that were funded under LPW were funded in a much shorter processing time period.

I think you indicated the reason for the LPW success was that all of the planning was in place at the time a community came seeking the grant. In the backup to your testimony, you suggest this would probably not be acceptable to local areas because there would be no money provided to the planners in that situation. But we do have testimony earlier that indicated that some communities are actually opting to drop out, go their own way, fund their own project because of the 7½- 10-year project time, and that it is cheaper for them to do this.

I wonder if we could substantially shorten the time if local communities might be willing to undertake the cost of the planning and getting ready to go, if they were assured that they were going to have the construction money when ready to go.

I am not sure if I am making myself clear. What I am getting at is that your backup material does not really address the question of why certain things cannot be done by certification. A lot of these 54 laws, it seems to me, could be combined in certification since you are going to have an audit system that will pick them up.

Mr. COSTLE. I suspect that there is the point on which there might be a rough spot, that you can put the money in a bank and say if you want to go ahead and plan, plan quickly. You still have to go through a set of decisions that says did the project meet the criteria that the Federal Water Pollution Control Act mandates? One of the values of the planning process is that you maximize the likelihood when you come out of that process, that you will have a project that is eligible, that is legally sufficient, that shows adequate analysis has been done as the Congress has directed it to be done. I would worry about a community saying we bought a pig in a poke and we did not get our money's worth because we forgot to dot the i's and cross the t's.

I say that not to belittle the process of certification. If there is anything we can do to shorten that process, we ought to be doing it.

Mr. CLINGER. It seems to me we could conceivably do this. Particularly I am wondering if you have had an opportunity to look at the projects that were done under LPW. I believe all of the same laws would apply to those projects. They were completed in a faster time. I am just wondering if there was any lessening of the quality of the project or if they failed to meet the requirements of the law under this faster track system.

Mr. COSTLE. I am not aware of any but I have not personally reviewed it, and if I may again respond for the record.

[The following was received for the record:]

THE LOCAL PUBLIC WORKS EMPLOYMENT PROGRAM

The Local Public Works Employment Program of the Economic Development Administration was authorized by the Local Public Works Capital Development Act of 1976 (42 USC 6701, et. seq.) and the Public Works Employment Act of 1977. These Acts authorize the Secretary of Commerce, acting through the Economic Development Administration (EDA), to make direct grants to State or local governments for local public works projects. The direct grants made by EDA were almost all for 100 percent of the estimated costs of the projects, with no provision for later change orders to increase the grants. EDA could make grants that supplemented grant assistance under any other Federal, State or local programs for local public works projects.

The EDA program was intended to provide immediate employment by funding public works projects that already had completed planning and design. The projects had to be ready to go to construction within 90 days or the grant would be cancelled. It is not believed that actual construction time for a project was any different from regular EPA funded projects. Some 24,000 projects were submitted for funding, and of these only 2,000 were the type of sewerage projects that were eligible for funding under the EPA municipal wastewater construction grants program.

EPA views the EDA program as being successful in meeting its principal purpose of providing a number of public works jobs quickly. This is a program quite different from EPA's construction grants program, an environmental program whose principal purpose is the reduction of pollution and the restoration of fishable-swimmable waters.

Mr. CLINGER. One final question.

Is there any thought being given to possibly a simplified system for the smaller communities that do not have the expertise or alternatively providing more technical assistance to them? One of the suggestions yesterday by the gentleman from Rockford was that he goes out on a consulting basis and loans himself out to various small towns.

Is there any way we can make the process easier for the smaller projects? Perhaps they are not as complex, do not require the massive amount of technical backups that the urban areas would.

Mr. COSTLE. In fact, we do adopt administrative guidelines and I think they are finally in the form of regulations, which simplify the whole grant application process for smaller communities. We estimate it is probably saving not just millions but in the hundreds of millions. We have cut the processing time down now for them quite significantly. The system has not had a chance to play out yet, but that is an absolutely legitimate concern. We are finding it in other areas.

Under 301(h), for example, a 2,500-person village in Alaska just does not have the capacity to do what Boston ought to do, the scale of the problem being different, too, in terms of trying to address that issue of secondary treatment in that context. We have been sending technical assistant teams throughout the communities in Alaska. There are clearly some communities that have the expertise, and the sophistication, and probably would just as soon not have us there.

In other cases, there might be some of that same expertise but it might be an instance where we could help by easing the requirements for smaller communities.

Mr. CLINGER. I think that has been my major overall observation, that there is a certain rigidity that treats everyone the same.

Mr. COSTLE. I think we are beginning to get smarter about that.

Mr. CLINGER. I have a number of other questions but I know our time is short.

Mr. COSTLE. The President is expecting me to appear at his doorstep at 12:15.

Mr. MINETA. With that admonition, if Mr. Royer would go ahead.

Mr. ROYER. Thank you, Mr. Chairman.

I will try not to be redundant, Mr. Costle. I hope that my questions do not seem hostile, Mr. Costle, because I do not intend them to be. I have the same commitment that you and Mr. Cleveland indicated.

I hope we can work somehow in that direction.

I want to follow up on the delegation authority. Many of the comments we received yesterday or the past 2 days indicated to me that people at the State level feel that if they had 100-percent authority, they could operate more smoothly with EPA retaining oversight.

Would you concur with that, at least in the areas where they were willing subjects?

Mr. COSTLE. And where they had the proven capability and adequate resources, yes. That is our objective.

Mr. ROYER. I think from what I have heard in the last couple of days, and after listening to you, that 100 percent delegation is one

of the areas we ought to be zeroing in on rather than being at the point of trying to get 45 percent by 1981.

We ought to be working toward a higher goal.

Mr. COSTLE. I should point out, if I may, Mr. Royer, that those figures are actually deceptive, because the areas we are delegating first are the areas where there has been the most criticism of dual or duplicative review. So in fact I think those percentages probably mask the degree of delegation on the kind of issues that tend to be irritating, for example, plans and specifications.

Mr. ROYER. The thing that has come up most clearly to me as far as EPA not being able to delegate, and the reluctance on the part of the States to accept delegation, is because of the funding. My personal feeling is, it does not make much difference whether it was due to the then-administration's indifference or the now-administration's indifference in appropriating funds.

I think we have to get to the point where we have a stable funding program. I know Mr. Cleveland and Mr. Wright have a bill in that would give some more permanent funding, some stability to it. I was wondering, do you support that legislation?

Mr. COSTLE. We have supported it on the record.

Mr. ROYER. Mr. Clinger and also Mr. Levitas talked about the 54 Federal laws that cause problems. Have you reviewed them sufficiently to know if there are some you could recommend be eliminated so we could end up with the same projects and reduce the review?

Mr. COSTLE. We would be happy to share that with you. My hunch is that you will find you cannot look at anyone and say, it does not make sense——

Mr. ROYER. It seems to me that from some of the testimony we were requiring all projects to go through a process that included some things that were not normal in most areas. As a result, in areas where you did not need to do some kind of investigation, it was still having to be done. It seems to me, that should not exist.

Mr. COSTLE. I think it would be fruitful to sit down and go through those.

[The following was received for the record:]

The members of the Committee requested that EPA furnish them with specific suggestions for reducing delays caused by the varicus requirements of the 54 federal laws and exective orders applicable to grants under the Construction Grants Program.

As the Administrator and others testified, EPA is not implying by mentioning these requirements, that any or all of them are unimportant or unfair burdens on the program. Rather, they are mentioned to help explain the substantial time it takes to plan, design, and build a wastewater treatment facility.

At the Committee's request, we have examined these requirements to ascertain whether there are areas in which they could be reduced or eliminated. Our investigation has indicated that each requirement alone does not have a severe impact on the program, but it is the cumulative effect of complying with so many uncoordinated requirements and differing procedures that contributes to delay and extends the length of the grant process for all projects.

EPA believes it would be inappropriate to single out individual laws or executive orders for change. The need we see is for a better coordination of laws and procedures with similar aims and purposes.

We understand that the Council on Environmental Quality (CEQ) has already done some initial work on clarifying and integrating Federal environmental review programs. Therefore, we suggest that the Committee's request be filled through a continuation of CEQ's efforts. The Council represents and excellent form for a task such as this.

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Mr. ROYER. The other point is that in reference to this type of thing, we received an abundance of testimony. I have to say, what you have done today in my mind alleviates this in many instances.

Although the questioning, has been extremely good today, it seems to me, you would want to review the testimony that has occurred today and respond to some of those more critical areas. I would hope, Mr. Chairman, that we could request as part of the record a response from EPA, pertaining to the criticisms that did take place, and their answers to them.

Mr. COSTLE. We would be delighted.

[The following was received for the record:]

EPA's testimony and written supplement addressed most of the criticisms made by earlier testimony. These criticisms centered on delays in facility planning and project completion. Specifically criticized were requirements for AWT review, retroactive application of regulations and several mandated requirements, such as Buy America, public participation, Minority Business Enterprise participation and nonproprietary purchase requirements.

Approximately 15 specific projects were cited as examples of delayed approvals and completions due to improper management and other factors during the planning period. While there is a variety of specific reasons for the difficulties with each project, the major causes are submission by the grantee of incomplete facility plans requiring that additional information be requested, mandated AWT review, effluent standards disagreement between the State and EPA, collection sewer justification and assignment of priority.

Our analysis of over 2500 active facility plans over 18 months old indicates that the majority of projects have the bulk of their delays on State, local and engineering levels. Grantees and engineers have been responsible for 42 percent of delays, the States nearly 14 percent and project complexity 23 percent.

No doubt some delay is due to new project requirements imposed to address specific program deficiencies or responding to new laws or executive orders. Our testimony outlined actions being taken to expedite facility planning.

Major program guidance with retroactive impact that we have issued is discussed below. Included are a few examples which illustrate the deficiencies this guidance has addressed.

1. *PRM 76-3.*—Presentation of Local Government Costs of Wastewater Treatment Works in Facility plans. Prior to issuance of this guidance project costs could never be discussed meaningfully at public hearings. Information was not presented in readily understandable terms such as actual dollar per month costs. The public had little notion of cost impact until projects were underway or completed and sewer charges had been assessed. This PRM has promoted stricter scrutiny of costs and generated cost savings in many projects.

2. *PRM 78-4.*—Grant Eligibility of Land Acquired for Storage in Land Treatment Systems. PRM 79-3. Revision of Agency guidance for Evaluation of Land Treatment Alternatives Employing Surface Application. Policy and guidance to promote vigorous consideration of the land treatment alternative. In Muskegon, Michigan, with a user charge of 22 cents/1000, land treatment was providing a higher level of treatment than East Lansing, Michigan with in-plant treatment and an 85/1000 user charge. Further, a Michigan State University study of 6 small municipalities found conventional treatment systems were approximately 45 cents/1000 gallons treated more expensive than land treatment systems.

3. *PRM 78-9.*—Funding of Sewage Collection System Projects. This policy and its predecessor PRM 77-8, have addressed the real problem of State priority systems limiting Federal dollars to projects which provide fewer pollution control benefits than more needed treatment plants and interceptors. In South Pymatuning, PA, the original project proposed sewering an entire community to convey wastewater to a regional facility at a total cost of $4 million. EPA's recommendation lead to a new project to sewer only problem areas, and saved $2.2 million. In Emmet County, Michigan, the applicant proposed a $3.9 million project to construct sewers around lakes and convey wastes to a plant 10 miles away. The EPA alternative is a combination of cluster systems and repair of on-site systems for a total cost of $1.2 million.

4. *PRM 79-7.*—Grant Funding of Projects Requiring Treatment More Stringent than Secondary. Sod Run, Maryland's proposal for an advanced treatment facility was reviewed by the EPA Advanced Waste Treatment Task Force, and unjustified treatment measures were removed resulting in savings of $2.4 million.

HAMPDEN COUNTY, PA.

Mr. Tracy Greenlund testified that his firm will complete the planning, design and construction of a wastewater treatment works for Hampden County, Pennsylvania, in 2.16 years—compared to 7.5 to 8 years in EPA grant funding was involved. Inquiry reveals this project would not be eligible for EPA grant funds because it is almost entirely for future growth of the community. There has been a great deal of public support and the local community has pushed for the project. This is in marked contrast to many EPA funded projects which often encounter public apathy or opposition. The basic needs and concept planning, which a Federally assisted project addresses in a facility planning process lasting two to four years, were established before commencement of the period and the addressing of population projections, environmental and other issues was not required. Governmental reviews and the various statutory requirements concerning proprietary purchase of equipment, Buy America, etc., are not applicable to this project. A specific, already developed German technology is being used which simplified design and essentially requires just site adaption. The project is not comparable to those eligible for the EPA Construction Grants Program.

Mr. ROYER. One other thing I would like to ask. The hearings have been very good, and I think some very fruitful things can come out. But I think it needs some monitoring.

I would hope that we would be able to prepare a final report on the subject, so we could actually zero in on the areas of importance, so that we could make some sense out of the whole thing.

Mr. COSTLE. It would also be very constructive—it is a complicated enough subject. We obviously have a lot of people to persuade on the funding question. I think this committee is absolutely instrumental in that.

Mr. ROYER. I would like to ask you one more question, and then I am assuming that the record will be open for extension of remarks.

That question is: Do we have a problem with projects being completed that are obsolete, even at the time of completion, where projects are being submitted for expansion almost prior to completion of the original project?

Mr. COSTLE. Only in the sense of capacity.

Mr. ROYER. That is what I am referring to

Mr. COSTLE. It is not like making fighter planes in that sense of obsolescence. But in terms of the capacity of a plant to handle influent from that community, we have seen situations where growth has been more rapid than people thought it was likely to be.

Mr. ROYER. I guess what I am saying is I know where capacity was limited because it was not practical to consider growth. It is a fact of life. I am not suggesting it is EPA, but someplace along the line someone is using these types of programs to control growth unreasonably.

Mr. COSTLE. Presently, when we approve a plan, there is a growth factor; that is, a capacity factor that acknowledges growth. That is based usually on local figures and State figures.

We have been equally criticized on the other side for tending to accept inflated figures, it is obvious that the kernel of that question is, how much of that growth should the Federal Government be paying for, as opposed to local government.

Mr. ROYER. It just seems to me that growth is taking place, and somehow it has to be anticipated.

One last question, and then I know you have to rush. Are we comfortable—how do you feel, pertaining to the bid process. Is it

getting the best bids? Is there the competition that is necessary in order for us to get the right kinds of bids?

Mr. COSTLE. I am reviewing that right now. Some equipment manufacturers say it is too competitive. Some general contractors say it ought to be more competitive. I am getting versions of that from different interests groups, and I am trying to sort that out right now.

Mr. ROYER. It seems to me that we have heard some testimony about some of the larger companies versus the smaller companies, and I am wondering how that enters into it.

I would like some comment back from you on that.

Mr. COSTLE. We would be happy to respond. One of the real concerns that I have is that too many of these plants are breaking down too quickly.

[The following was received for the record:]

We believe that the bidding procedures utilized by State and local governments for contracting under the construction grant program are providing the amount of competition that is appropriate for public procurements. Special bidding procedures have not been established for the construction grant program. The bidding procedures used are basically those followed by State and local governments for any projects which they would publicly advertise for construction. Under these procedures, the consulting engineer usually prepares plans and specifications which are the basis for public advertisement and competitive bidding (municipalities sometimes do this work themselves). Unless there is some irregularity, the contract is usually awarded to the low bidder.

It is the responsibility fo the consulting engineer and the grantee to assure that the plans and specifications describe the quality of the items and equipment necessary for the successful functioning of the project over its design life.

Section 204(a)(6) of the Federal Water Pollution Control Act requires:

That no specifications for bids in connection with such works shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing or to provide for necessary interchangeability of parts and equipment, or at least two brand names of comparable quality or utility are listed and are followed by the words "or equal".

State and local bidding procedures for public facilities also emphasize competition and performance and usually have some prohibition against utilization of brand name specification unless "or equal" items are also permitted to be bid. Except for requiring the use of "two brand names or equal" instead of "one brand name or equal" the requirements of Section 204(a)(6) are not significantly different from State and local public bidding requirements that are in effect for non-construction grant projects.

In order to encourage the consulting engineer and the grantee to take a more active role in the selection of quality equipment items necessary for the successful operation of completed facilities and still maintain the open competition appropriate for public procurements, EPA has developed, for voluntary use by grantees, basic qualification procedures which permit items to be qualified through a competitive process, and listed in the specification. These procedures were issued in Program Requirements Memorandum (PRM) 79-10 after long discussions with various parties and interest groups involved in the construction grant program.

Under Section 204(a)(6) and EPA regulations and guidance implementing this provision, grantees and consulting engineers have a variety of options that can be utilized, if consistent with State and local law.

1. Performance specifications may be used to describe the necessary features and functions of the item.

2. A cost effectiveness analysis may be performed to determine life cycle cost elements and based on adequate written justification a single cost effective item may be specified by name.

3. The necessary quality and salient features of items and equipment included under the contract may be indicated by naming in the specifications two such items which meet the requirements of the project followed by the words "or equal".

4. Items may be qualified through a competitive process ahead of the bidding and a list of items meeting the requirements of the design as determined by the gran-

tee's consulting engineer can then be listed in the specification as the only ones which will be accepted.

In terms of small versus large companies, we believe that there is an adequate balance among various size competitors within the market place. We futher feel that we should not seek to unfairly influence the mix by size of company through the bidding process utilized for procurement of public facilities in the construction grant program. All of the procedures suggested by the equipment industry (life cycle costing, qualification ahead of bidding, sole source procurement, etc.) are identified and available for use by State and local governments who are responsible for the bidding procedures they use. What is needed to assure that adequate quality and reasonably priced equipment is used in publicly owned treatment plants, is for grantees and consulting engineers to assume the responsibility (which is theirs) for clearly specifying what is required and rejecting equipment that does not meet these requirements.

5. Equipment, items and processes which qualify as innovative can be proprietarily specified by name "to test or demonstrate a specific thing."

Mr. ROYER. Thank you, Mr. Chairman.

Mr. MINETA. Mr. Costle, we ask that your staff stay to respond to the remaining questions.

Mr. COSTLE. I did not expect the President would want to see me at 12:15. I will be more than pleased to come back before you.

Mr. LEVITAS. Is there any reason why the Acting Assistant Administrator is not here today?

Mr. COSTLE. He is over on the Senate side trying to get confirmed.

Mr. MINETA. Thank you, Mr. Costle, very, very much for a fine statement. As Mr. Royer indicated, I always try to find out where we are going to be at the time we complete the hearings.

I think we have come to focus or two areas, the administration of the program, and the ability to provide consistent funding; and that we would hope that the EPA would be able to deal with the administration end of it; and I personally will work as hard as I can on the funding consistency problem.

But we have also had a considerable amount of testimony this week about the time it takes to process a grant project through this program; and on page 22 of the statement, you note that the average time ranges from 7 to 9 years; and this, by the way, if almost identical to the estimates the committee heard from State witnesses.

Then the statement goes on to note, and I quote: "If we can hold to these schedules, we have the potential to achieve marked results in our pollution control effort in the next 10 years."

The testimony we have heard this week would indicate that there is considerable room for improvement in this area, and that it can occur much sooner than 10 years. In fact, testimony yesterday indicated that we should be able to obtain at least a 25 percent improvement in performance in about 1 year.

I am wondering if there is any reason why we cannot look to achieve this and shorten the average project life span by 25 percent.

Mr. LONGEST. Our best estimate of what we could do reasonably in the next year is reduce this timing in the neighborhood of 15 percent. In other words, we feel if we could reduce the total time from step 1 through to completion of construction, to 6 to 8 years, rather than 7 to 9 years, we feel that that is a reasonable length of time for this very complicated program.

We think we will be doing this for two basic reasons: One is the fact that the 1977 amendments, and the follow-on regulations have been in effect for approximately 2 years. They are starting to be understood in the field.

The second point is the continued insistence by EPA on delegation to the States, which will end the tandem-type reviews; in other words, the State will be doing the review, and certifying to EPA, as was suggested.

In effect, under a fully delegated program, EPA would only have to signoff on the actual grant application, and only be involved in a limited number of requirements, such as NEPA, the National Environmental Protection Act.

If we can shorten 7 to 9 to an average of 6 to 8, that is the best we can expect.

Mr. MINETA. What about those areas where you have delegated—let's say there are 40 functions, and you have delegated only 27 of them. Is there a way of taking those remaining ones and putting a self-limitation as far as the period of time of dealing with those, in order to speed up that process?

Mr. LONGEST. I mentioned earlier the program management system which we just put into effect in the last couple of months. Part of that management system is to do exactly that; set limitations on applications in review in EPA regional offices. And we feel the State can do the same thing in the delegated programs as a promotional tool.

For example, if you say the limitation on processing time should be 90 days, then if the manager keeps track of that, we think that can happen. I don't think we can go to the point where we say, if it is not completed in 90 days, you have to sign off regardless. That is not possible.

But the point is if a program is well managed, and you have goals and you have good managers and supervisors, we think it can be accomplished.

Mr. MINETA. We heard examples of where something may be innovative, or an alternative method might be used, and that might provide a 10 percent savings. But with construction costs going up 25 percent, if that is going to take 7 months to be processed, you eat up any anticipated savings.

Now, this is what we were hearing as far as what is happening in this program at the street level, so to speak. Is this a fair assessment from your point of view?

Mr. LONGEST. That is accurate; we recognize that.

Mr. MINETA. Mr. Cleveland?

Mr. CLEVELAND. Is there a member of the panel that can inform me as to what has happened under the reallotment provision we wrote under the law? I understand the reallotment date was the end of September.

Has there been any preliminary figure as to how much will be in the reallotment?

Mr. LONGEST. There was only one State that did not obligate all of its funds; that was the State of Ohio. The first figure for reallotment was $39 million. More recently we have heard, it might be in the neighborhood of $25 million.

We have not gone through the actual reallocation process of that money at this point.

Mr. CLEVELAND. Did you have any information as to how these—at one time it looked like it would be in the order of several hundred million dollars. Do you have any information how they—how they squeezed under the wire?

I know the last time you people were forced to approve a lot of second or third priority projects.

Mr. LONGEST. Yes, I understand what you are referring to. There were several States which we had projected, going back almost 1 year, that would lose funds. Before we get into the specifics, I would like to comment that this relates to the question of management

Any time that we would project that a State would lose funds, they would redouble their efforts to prove us wrong. That is fine. That is part of management. If you see something in advance, and then take corrective action, then your purpose has been served.

Mr. CLEVELAND. It is not very good management if you crowd a State into coming up with a project that is at best low priority.

Mr. LONGEST. I agree with you. I am just saying, that is part of management. I did not mean to say it was the end-all.

For example, in the State of New Jersey, there was a projection of a loss. In New Jersey, what the regional office did, region 2 in New York, they actually took one of their senior managers in the construction grants program and assigned him in the State offices. In fact, he is still there. He supervises part of the staff in the construction grant process.

His familiarity with the program, and what is necessary to move projects has helped. In addition to moving projects, getting into technical matters, such as grant amendments and funding for a specific year, he was able to assist the State to move much more quickly, and move projects through the system.

Some of those projects were the pipe-related projects, no question about it. Currently Mr. Costle will be requesting each regional administrator to look at each of these projects, just to make sure that all of the projects which were funded, were good projects in terms of pollution control.

We feel at this point that they were. We have no reason to question that.

Mr. CLEVELAND. There has been a good deal of concern expressed by members of this committee about how long it takes a project from the time it is started to the time it is finished.

You people suggest that six or seven years might be a good timeframe. I disagree with you. We had an example in the hearings of where they did it in 2 years, but they did it without benefit of Federal funding, and saved money.

Perhaps one of the keys to speeding up the work is the inspiring of fear of losing money, and obviously, that certainly speeds things up to a certain extent.

Mr. LONGEST. The fear of the reallotments, yes.

Mr. CLEVELAND. Provided, of course, that they come across the line with decent projects.

Mr. LONGEST. In reference to the project yesterday, I am not familiar with the details of the project, but completing a project in

2 years may be possible if all of the planning and design work is completed, and we are talking about just the construction.

Mr. CLEVELAND. I have asked my staff to get me a memorandum on it, and I will share it with you. From beginning to end, 2 years, no Federal money. And because they did it so quickly, they figured they would do better than if they sat around and waited for the 75 percent funding.

Mr. LONGEST. We would appreciate seeing that. Thank you.

Mr. CLEVELAND. We will see that you get it. If my facts are correct, you can ponder them.

Mr. LEVITAS. On page 21 of Mr. Costle's statement, he talks about the AWT program. I would like to say, while there has been some criticism of this process, I for one think it has been important and would like to share some of the blame or credit for having it put in place.

What concerns me is that in Mr. Costle's testimony, he makes the statement in the first paragraph on that page that the project delays inherent in the headquarter's review has increased original projects caused by inflation to $93.6 million' while recognizing a savings of $35 million on unneeded projects, and making the most of the fact that additional savings will be recognized through reduced operating and maintenance expenditures—you better believe it.

What I have concluded from this is somewhat different. What I conclude is that there should not have been the necessity for a subsequent review; that those $35 million worth of projects should not have been approved in the first place; that somewhere, somehow, for some reason, there has been a breakdown.

This is verified later on on that page, where Mr. Costle testifies that regional review of projects has resulted in capital cost savings of $29 million or 40 percent of all projects submitted for regional review during the past 5 months.

What I am suggesting to you is that for some reason there were $35 million worth of projects which should not have been approved to begin with. And the new sensitivity that has resulted in 44 percent of all projects—is my interpretation valid?

Mr. LONGEST. Your interpretation is valid. One thing I think we should not lose sight of is that these projects have been in the planning process, and some of them even into the plans and specifications.

So we are going back 4 or 5 years when these projects were initiated. When we look back into the history of when EPA was formed, the last time the Federal budget had a surplus, then the mood of the country was quite different.

Anytime advanced waste treatment was mentioned, that was as far as we had to go. Now, today, we are faced with a quite different situation with the economy. People are more interested in the costs. People still are interested in the environment, but people are very critical of costs.

So I think it has been the history of the program, not just that something slipped through somebody, but people are now viewing things differently. They are taking into consideration more of what it will cost the individual taxpayer.

Mr. LEVITAS. I think the whole country has decided that there is no unlimited resource of money, and we have to get our act together and only fund those things which are important.

This new review process, and the new methodology which you will explain when you meet with regional and State personnel in December, will that include a discussion of life-cycle costing, and the potential impact of operating and maintenance expenditures on local communities down the line?

Mr. LONGEST. Yes, very definitely. I would like to reiterate part of my previous comment, and that is, when the community, the applicant views various processes, and selects an alternative of a treatment system each process is based on total life-cycle costs, capital costs plus maintenance and operation.

Mr. LEVITAS. Energy?

Mr. LONGEST. Yes, all costs, total cost of the project.

Mr. LEVITAS. Still, in this AWT area, I have sort of a cynical feeling as to how some of these projects arose. I was 10 years in our State legislature, and looked closely with State officials in this area. State administrators of environmental programs look at the amount of money available to them from the Federal Government, and they want to grab it as quickly and as much as they can.

That is sort of the incentive. That is where they are coming from. They are interested in the environment, obviously, but the more money they can get from the Feds in the shortest period of time, the better they look to their Governors or their State legislatures.

So therefore, according to my scenario, a lot of these administrators look for high-cost projects which can capture a lot of matching funds from the Federal Government; and that they go after those projects, even though there may be more benefit from smaller, less expensive projects, because it is easier to process 1 grant for $50 million, rather than 10 projects for $5 million each.

Am I being overcynical, or do you think it might happen?

Mr. LONGEST. Yes, I think it might happen, and has happened.

But to follow on your life-cycle cost comment, in our new review process, these are really not new requirements. It has always been required, going back to our guidance in 1974 that projects be cost-effective. Cost has always been something that was in consideration, total cost of the project, capital costs plus operation and maintenance.

But I would not sit here and say that someone has not chosen a program for your reasons.

Mr. LEVITAS. Mr. Clinger, who has touched on the small community situation—it is my understanding that about 80 to 85 percent of all projects are basically ones which are in communities of 25,000 population or under. Is that figure accurate?

Mr. LONGEST. Between 75 and 80 percent. That is in the range, yes.

Mr. LEVITAS. There is a provision in the 1977 act which permits a combination of steps 2 and 3, and in cases in small communities with projects of $2 million or less. I have two questions in that regard.

No. 1, should there be an increase in the dollar amount which would be subject to this combined step 2 and 3 process? That is the first question.

And the second question is, and this is one I have never gotten a satisfactory answer to—it seems to me that the trigger for the combined procedure should be the size of the project, not the size of the community. If New York City is building a $2 million project, why should they have to go through all of those step 2 and 3 procedures? Why shouldn't it be done because it is a small project, rather than because it is a small community?

Mr. LONGEST. To answer your last question first, the size of the community should be directly proportional to the size of the project.

Mr. LEVITAS. Are not there small projects in large communities sometimes?

Mr. LONGEST. Not really. I am thinking in terms of a community that can look to alternatives, whether it be on-lot systems, or spray irrigation, or things like that.

I think the cost is very directly related to the size of the community.

Regarding your first question about whether that dollar amount should be increased, Mr. Costle did mention that he would consider and we would look at that, and I would like to rest on his statement there.

Mr. COOK. I want to add to supplement both questions, if I may.

When the $2 million figure was hit upon, it was basically from information we provided in 1977. Inflation has ranged 10 to 15 percent a year since then. So obviously the size of the project and the size of a community that can benefit from the step 2–3 process have gotten steadily smaller.

On the other question that you asked, as Mr. Longest says, the size and cost of the projects in large communities are normally much, much higher than in smaller communities. However, they sometimes do, as you suggest, have very small projects that they want to expedite.

If we could figure out some way of making sure that legitimately small projects did come in from large communities, I think we might favor a step 2–3 process for them.

Mr. LEVITAS. I am very encouraged to hear that.

Mr. COOK. The answer to your question as to why we have not pressed for that kind of approach is that it would encourage those large communities to chop their large projects into little pieces, and submit the little pieces to us, which would, I think, create administrative and managerial chaos.

Mr. LEVITAS. But I can see a geographically large area, let's say Jacksonville, where there might be an outlying area which might not be served out of the central system which does need wastewater treatment facilities.

That would be a relatively small project. It seems to me there should be a way of fast-tracking that as if it were a small community in making that obligation.

Mr. COOK. Yes, sir.

Mr. LONGEST. I think that can be done now. The issue is, who is the grantee. We understand what you are saying.

Mr. LEVITAS. My last point is this; Mr. Cleveland brought it up in his questions to Mr. Costle earlier. But I was very disturbed to hear yesterday testimony to confirm other information which I received that Congress, the appropriations committees, are looking at the information supplied by EPA, which is not accurate in terms of the nature of the backlogs, and that that has led to—at least one of the contributing factors to the stop-and-go funding that the appropriations committees have seemingly pursued in the last couple of years.

There are significant backlogs, it seems to me. But the EPA data, which the decisionmaking is based on, does not reflect that.

What can we do to make the data reflect the realities so that we realize that the program needs to go forward, that the demand is there, that there are projects available on the drawing board which need the funding, and that this artificial, unobligated, unexpended funding can be dispelled?

Mr. LONGEST. We have taken steps in that direction. One thing, as a result of the 1977 amendment, we now require the States to develop a 5-year priority list. Before that, we required a priority list that was a 2-year priority list, and the priority list before that was a 1-year priority list.

Some 106 SMSA's had that treatment need. By looking at the 5-year priority list, we can project further into the future what the needs will be. Through delegations to the States, and our implementation of the management system, this all ties together. Five-year priority lists are part of the management system.

From that, we can determine the needs by State, by community, by year; and that should also tie into our needs survey, which is done biannually. So we have taken steps to pull that together.

Regarding Congressman Cleveland's notation on New Hampshire, the figures being wrong, he is absolutely right. We did make an error in New Hampshire. That was a mistake. That was an extreme.

On the other side, the projections on New York, we were very close.

So while we did have some individual cases where we were wrong, our total projections were not that far off. They were very close.

As an example, for the total national program for fiscal year 1979, our projections on outlays in the program nation wide were within less than 5 percent of our original projection. That was a result of concentrated management action, to concentrate on outlays within the program.

So what I am saying to you, in summary, is, we recognize the need for our figures to be accurate. We have to work with the States, and we are doing that. And through the delegated program, we can accomplish this.

We would like to add one aside to this. It must be recognized that it is natural for a State to want to get the best figures they can in terms of showing, they had obligated the funds. It is very difficult for a State to say to their administrator in the State that we are going to lose funds, even if it might be obvious at that point.

We are trying to temper some of those optimistic projections, and be as realistic as possible.

Mr. LEVITAS. The industrial cost recovery situation, I understand that EPA administratively extended the deadline to December 1 because of the inability of the House and Senate to reconcile our views as to how long the moratorium should be extended.

What impact will there be on that if no resolution is passed by December 1? You do not need to get into the reasons why we have not gotten together.

Mr. LONGEST. Our estimate is about $380 million in new grants to approximately 125 grantees will be delayed for periods ranging from 2 months to 2 years. While the systems are being developed, and also approximately $450 million of payments on 215 projects will be delayed from periods of 1 month to 1 year, while ICR systems are being completed, reviewed and approved.

Mr. LEVITAS. Who set that cutoff deadline for stopping payments?

Mr. LONGEST. The December 1? EPA.

Mr. LEVITAS. Can you extend it further?

Mr. LONGEST. The rationale behind the administrative extension that we made to the legislative mandate was the fact that both Houses of Congress have passed a proposed extended moratorium but have not agreed on the timing.

We felt that we had the rationale to extend it to the point we did only because Congress was still in session and would have the opportunity to act.

We feel we have no legal basis to extend that beyond this session of Congress.

Mr. SMITH. Technically we are in violation of the law at this point. To the extent that we go beyond that, I think we are in more trouble.

Mr. MINETA. Mr. Clinger?

Mr. CLINGER. Just to follow up on the allocation system I wonder how you appraise the delegation process so far? Do you feel it is working well?

Mr. LONGEST. Yes; we feel it is working very well. We wish it would move a little quicker, but we have had several States that are really moving into the program. They have been successful in hiring personnel. That has been one of the problems.

Mr. CLINGER. Has that been because of the inadequacies or insecurity of what the funding was going to be under Cleveland-Wright?

Mr. LONGEST. I think it is a combination, from the stateside, of the salary and the availability of people. And also from the stateside, in terms of what you mentioned, it is whether the program is going to continue at a high enough level that they can support them.

So it is both reasons.

Mr. CLINGER. One of the witnesses we had earlier indicated that since the delegation to them had taken place, EPA had imposed four new requirements, and had undertaken review of four new areas, since delegation.

Those were: public participation provisions; minority business review, AWT review and pretreatment requirements. Each grantee had to respond to them, which meant there was no saving of time, and that we were back to square one.

Are those legislatively imposed requirements?

Mr. LONGEST. The public participation requirements are requirements for which we were just late in putting out the guidelines ourselves.

Mr. CLINGER. And it is mandated that EPA do that?

Mr. SMITH. It is in the Clean Water Act.

Mr. LONGEST. Yes, that there be public participation. But they are correct, since the delegations we have put out the regulations.

Mr. CLINGER. And on the advanced water treatment?

Mr. LONGEST. AWT reviews were placed on us by the Appropriations Committee as a requirement before the funds could be obligated.

Mr. CLINGER. I think you were requesting in the testimony that you be relieved of that responsibility?

Mr. LONGEST. Yes, Mr. Costle has previously and is today requesting that he be relieved of that responsibility.

Mr. CLINGER. And what about municipal pretreatment requirements?

Mr. LONGEST. They are in the act. They have been there so there is another instance where we have not gotten the guidance out prior to delegation.

I guess one of the key problems there is in identifying the toxic substances and the metals that are in the influent going into sewage treatment plants; and then trying to determine what the effluent of the sewage treatment plant will be. And we still have not come up with the complete guidelines on the necessary pretreatment.

Mr. CLINGER. Is there any reason why that could not be done under delegation, or why that could not be delegated to the State.

Mr. LONGEST. EPA has a charge to come out with effluent criteria, and also, pretreatment criteria. It has to be a national guideline.

So the burden is on EPA. Once we come out with a guideline——

Mr. CLINGER. Once you come out with it, it can be delegated?

Mr. LONGEST. Yes, sir.

Mr. CLINGER. How soon do you think you will come out with these?

Mr. LONGEST. Maybe Jim has a better answer on that. The effluent guidelines are still being developed for the various industries. I think we are looking at 1 to 2 years before they are completely finished.

It is a very difficult task.

Mr. CLINGER. Maybe you could provide that information for the record, what the status of that program is. As I understand it, 30 States have negotiated delegation agreements with you at this point, and 12 are in the process of negotiating with you.

That leaves 14. What arrangements are you making for the States that do not participate, who do not want the program for whatever reason?

[The following was received for the record:]

EFFLUENT GUIDELINES DIVISION
NRDC CONSENT DECREE INDUSTRIES
PROPOSAL AND PROMULGATION SCHEDULE
August 14, 1979

| Industry | Proposal Dates* | Promulgation Dates* | Remarks |
|---|---|---|---|
| Leather Tanning and Finishing.. | 6/13/79 | 3/ 7/80 | |
| Electroplating (Pretreatment).. | None | 8/ 9/79 | |
| Textile Mills..... | 8/31/79 | 3/28/80 | |
| Rubber..... | 9/17/79 | 4/18/80 | (1) |
| Gum and Wood Chemicals..... | 9/21/79 | 4/18/80 | |
| Paint and Ink Formulation..... | 9/21/79 | 4/18/80 | |
| Petroleum Refining..... | 9/21/79 | 4/18/80 | |
| Timber Products Processing..... | 9/21/79 | 4/18/80 | |
| Inorganic Chemicals (Phase I).. | 12/14/79 | 7/11/80 | |
| Steam Electric..... | 12/28/79 | 6/27/80 | |
| Auto and Other Laundries..... | 12/28/79 | 7/25/80 | |
| Pulp and Paper..... | 2/ 1/80 | 8/29/80 | |
| Coil Coating..... | 2/ 8/80 | 9/ 5/80 | |
| Porcelain Enameling..... | 2/ 8/80 | 9/ 5/80 | |
| Nonferrous Metals (Phase I).... | 2/15/80 | 9/12/80 | |
| Foundries..... | 3/ 7/80 | 10/ 3/80 | |
| Battery Manufacturing (Ph I)... | 3/28/80 | 10/24/80 | |
| Copper Forming..... | 4/11/80 | 11/ 7/80 | |
| Pharmaceuticals..... | 4/18/80 | 11/14/80 | |
| Explosives Manufacturing..... | 5/16/80 | 12/12/80 | |
| Iron and Steel Manufacturing... | 5/23/80 | 12/19/80 | |
| Ore Mining..... | 5/26/80 | 12/22/80 | |
| Coal Mining..... | 5/30/80 | 12/ 5/80 | |
| Soaps and Detergents..... | 5/30/80 | 12/ 5/80 | (2) |
| Pesticides..... | 6/20/80 | 1/16/81 | |
| Aluminum Forming..... | 7/ 4/80 | 1/30/81 | |
| Electroplating..... | 7/11/80 | 2/ 6/81 | |
| Photographic Supolies..... | 7/11/80 | 2/ 6/81 | |
| Battery Manufacturing (Ph II).. | 8/ 1/80 | 2/27/81 | |
| Organic Chemicals (Phase I).... | 8/21/80 | 3/21/80 | |
| Plastics & Synthetic Materials. | 8/27/80 | 4/20/81 | |
| Adhesives and Sealants..... | 11/28/80 | 6/26/81 | (2) |
| Electrical Products..... | 11/28/80 | 6/26/81 | |
| Mechanical Products..... | 11/28/80 | 6/26/81 | |
| Printing & Publishing..... | | | (2) |
| Plastics Processing..... | | | (3) |

* Date signed by Administrator
(1) Withdrawal of existing BATEA regulations on these dates.
(2) May be excluded under paragraph 8 of NRDC Consent Agreement.
(3) Low priority project. Deferred to later schedule.

| Industry | Total | Indirect Discharges Total number to be regulated by Pretreatment Regs. estimated |
|---|---|---|
| Timber Products | 189 | 49 |
| Steam Electric | 150 | 150 |
| Leather | 170 | 170 |
| Iron & Steel | 238 | 237 |
| Petroleum Manufacturing | 48 | 48 |
| Nonferrous Metals | 79 | 57 |
| Paving & Roofing | 138 | 0 |
| Paint & Ink | 1,600 | 460 |
| Printing & Publishing | 63,000 | 2,300 |
| Ore Mining | 0 | 0 |
| Coal Mining | 0 | 0 |
| Organic Chemicals | 900 | 720 |
| Inorganic Chemicals | 120 | 108 |
| Textile Mills | 1,700 | 915 |
| Plastics & Synthetics | 160 | 128 |
| Pulp & Paper | 260 | 50 |
| Rubber | 537 | 9 |
| Soaps & Detergents | 450 | 400 |
| Auto & Other Laundries | 90,000 | 1,500 |
| Pesticides Manufacturing | 46 | 37 |
| Gum & Wood Chemicals | 7 | 6 |
| Pharmaceuticals | 200 | 160 |
| Explosives | 0 | 0 |
| Adhesives & Sealants | 500 | 500 |
| Carbon Black | 1 | 1 |
| Mechanical Products | 71,000 | 3,000 |
| Battery Manufacturing | 170 | 170 |
| Plastics Processing | 2,700 | 1,350 |
| Foundries | 880 | 880 |
| Coil Coating | 50 | 50 |
| Porcelain Enameling | 138 | 138 |
| Aluminum Forming | 70 | 70 |
| Copper Products | 57 | 57 |
| Electric & Electronics | 8,000 | 500 |
| Electroplating | 16,086 | 16,086 |
| Photographic Supplies | 110 | 110 |
| | 259,754 | 30,416 |

Mr. LONGEST. What we would be doing is using EPA's resources, or continuing to use EPA resources in the regional offices to review the programs. We would have to provide the review personnel ourselves.

Mr. CLINGER. Would you contemplate, given the fact that ultimately you will have 42 States that will have assumed responsibility, a reduction of personnel within EPA?

Mr. LONGEST. Personnel in EPA to do which level of delegation?

Mr. CLINGER. As a result of delegation will there be any reduction of force within EPA?

Mr. LONGEST. Yes, I think there will be. In fact there has been a reduction of force within the last 2 years within EPA. One point that is important is that the reduction in resources in EPA is a direct result of the State taking on delegation, plus there are tasks that we have gotten behind on, such as closing out projects, either due to final inspections not being completed, or audits not closed out, or change orders, et cetera.

There are tasks that EPA has gotten behind on. What we would do first is clean up our backlog before the resources would be released.

Mr. CLINGER. You indicated that it would require anywhere from 2 to more than 4 years to complete the delegation program. I would assume that is the 42 complete delegations?

Mr. LONGEST. Yes.

Mr. CLINGER. Is there any way that can be speeded up, or is that the most expeditious?

Mr. LONGEST. Some can always be speeded up. The key issue is the hiring of the personnel in the States, and the training program, as the States bring the people on board, and they take over the delegations.

So it is how quick a State can bring on personnel and train them.

Mr. CLINGER. Testimony earlier in the week indicated, and I guess your testimony also, indicates only about 50 percent of the municipal plants presently in operation meets the requirements of the act.

Therefore, about 50 percent do not meet the requirements. Can you amplify why that is the case?

Mr. LONGEST. We are speaking of noncompliance, and when we are speaking of noncompliance the reasons can be administrative as well as technical For a sewage treatment plant to be in compliance they have to turn in reports, and based on those reports, a determination is made as to whether it is compliance.

When we look at the compliance of a sewage treatment facility, it can be strictly an operation and maintenance problem. It can be that it is overloaded Or it can be that a sewage treatment facility, in a few modern cases, is underloaded.

When we speak of noncompliance, sometimes it is a misnomer. If it is operation and maintenance, it is not as severe as if directly a design problem. It can also be an administrative problem.

I would like to make one final point. We have surveyed 100 plants that have been constructed under the 1972 amendments and we found that in that 100 cross section that only 20 were out of compliance.

So there has been some improvement in plants built in recent years.

Mr. CLINGER. Just one final area that I am not clear on.

Yesterday we had testimony from a gentleman from Rockford about the program that they have had going now since 1970. What happened in the Rockford program was, they already had secondary treatment, and the project they had implemented had merely allowed the community to expand.

You have indicated 106 SMSA's that do not have secondary treatment capability. I am wondering why a Rockford, which is in a growth situation, would be able to go forward with their program, when there are other areas that do not have capability for secondary treatment at all.

Mr. LONGEST. Out of the 106, 33 do have capability. Only 73 do not have capability of achieving secondary. In the Rockford case, I think a lot depends on the community. Here is Rockford that has a secondary treatment plant. They have taken a positive attitude. They have worked with the State, the EPA, and have moved foward.

The city of Chicago, they have secondary currently. They still have needs, but they have secondary treatment. They have taken a positive attitude, and moved their program forward.

Mr. CLINGER. Shouldn't we be providing some incentives to the communities that are not moving ahead so we can move to 100 percent on secondary treatment?

Mr. LONGEST. What we have done is issue the national municipal policy strategy to provide an incentive. The incentive is a combination of what they call the carrot and the stick. We negotiate with communities on a revised discharge permit, as is allowed under the 1977 amendments, for a 301(i) extension, with an administrative order to progress to secondary treatment, under the same schedule as the grants schedule. In that way, we combine the funding with the risk of enforcement.

Mr. CLINGER. Thank you, Mr. Chairman.

Mr. MINETA. Mr. Royer.

Mr. ROYER. I have only three very short questions, and one was facetious.

It seems to me ironic that when we have an agency that appears to have one of the longest processing times, we have a witness called Mr. Longest.

On page 11, I notice in the second paragraph that it indicates that EPA's efforts under 205 have been directed toward getting requirements and design data to communities.

Maybe I am not understanding the statement correctly, but wouldn't the design procedure be better left to the States or to the community itself? Or is it that you are just getting information of acceptable design criteria?

Mr. LONGEST. I think what we are referring to there is in the innovative and alternative area. You are right, basically the design should be done in the community.

But what we are referring to, like innovative and alternative, when we had to implement that, the first question that came back to EPA was: How do we know if it is innovative or alternative?

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We produced a manual, and we identified over 100 treatment processes. And we said, here are the existing treatment processes as we know them. If you have something not in here, it must be innovative. We have never put out specific design specifications, and we leave that up to the national societies.

Mr. ROYER. One last question. It refers to the program delays. It indicates that you had some requirements that by 1977 all major municipalities were to have met secondary treatment standards, and all major cities were to be using best practical technology, yet the municipalities only reached a 40-percent goal, wherein the industrial discharges did get to 80 percent. Are we not comparing apples with apples, or is there some reason that the industries were able to reach a higher level?

Mr. LONGEST. There are very definite reasons, the key thing being the municipal strategy that we are using, the combination of funding and the risk of enforcement.

The industry has had the risk of enforcement from day one of the act. They could never fall back on anything for Federal funds. The municipalities have always been able to say that they were not able to receive the Federal funds.

I think that is the basic difference.

Mr. ROYER. That is what I was thinking was probably the cause. I am wondering if that is appropriate.

Mr. LONGEST. I feel very definitely, yes, that is the case.

Mr. ROYER. Is it appropriate to have the hammer in the one case and not in the other? Isn't that what you are saying? In other words, municipalities can use the Federal Government as an excuse, or is it our responsibility, if we are going to mandate, to fulfill that obligation?

Why should we require one to comply and not the other?

Mr. LONGEST. It is also a question of resources from a management standpoint. EPA made a policy decision on where to apply its resources.

Back in 1972 we had to move forward with the grants programs in the municipalities, and at the same time, we had to take the resources, in terms of the enforcement arm of the agency, and had to go after the industry sources which had no rationale.

Whether that is right or wrong, I am just stating that was the fact, and that was the decision that was made.

Mr. ROYER. I guess my concern is that we seem to be using the law to enforce them, but on the other side, we are not living up to our own responsibilities.

Mr. CAHILL. There is another element. The corporate body, management body, is not constrained by institutional and jurisdictional and political constraints that we run into in the municipal bodies. Industries make a decision and make it stick.

Mr. ROYER. Thank you, Mr. Chairman.

Mr. MINETA. Thank you very much.

Mr. Nowak, a member of the committee, unfortunately has a scheduling conflict, and he has requested that he have an opportunity to pose a number of questions to you in a letter for your response and for inclusion in the record.

If there are no further questions to be directed to the panel, I wish to thank the panel very much for the presentation and for your cooperation.

During these three days of hearings we have heard from several of the various sectors that are directly involved in the implementation and management of the municipal waste treatment facility construction grants program.

The testimony that we have heard suggests several points which I believe should be expressed directly and publicly:

First, there is an overwhelming need to bring greater stability and predictability to this program. While these particular qualities appear to be increasingly elusive in today's world, there is nonetheless a strong argument here that without them none of the objectives reflected both in statute and in administrative regulation can be expeditiously realized.

The implementation of this program requires multiyear commitments from many sectors, public and private, local and national. Without stability and predictability from year-to-year, we make it very difficult for those commitments to be made. Which means we in Congress have an obligation to take care of our year-to-year funding responsibilities, and I expect to play a very important role in that.

Second, there is also a great amount of evidence to suggest that significant improvements can be made and should be made in the rate of progress of this program. Flexibility must be provided, giving the management decisions to those who are charged with that responsibility and who can be held accountable for those decisions. An important part of that effort will be continued encouragement to the States to apply for delegation and a continued commitment to making delegation work.

I look forward to having the EPA come before this committee in approximately 1 year to review just how much improvement is being realized, and to see how close we can come to the goal of reducing the time it takes to implement the average project by 25 percent.

Third, there is the problem of the retroactive application of regulations. In a program where the average life span for a project is 7 to 9 years, statutory and administrative changes can, if not applied judiciously, have seriously damaging repercussions.

I would hope that the agency moves forward in the immediate future to develop and publicly articulate a more definitive policy on this problem. However, I would caution that the agency should not have its hands tied so tightly that it can no longer be accountable for the integrity of the program itself.

Finally, with respect to the problem of innovative and alternative technology, what we have heard is discouraging. There must be incentives in this program for the small as well as the large developer of new and more energy efficient technologies. If we are to achieve our national clean water goals, we are going to have to look to what should be a healthy and viable technology market to provide us with the necessary capabilities. The evidence before this subcommittee suggests that this is a vital area which requires much greater thought and attention.

I would look to the EPA to advise the subcommittee at the earliest possible time as to what the agency feels can be done in this area.

The witnesses we have heard during these 3 days have provided us some valuable insights, a better understanding of the program's processes and accomplishments, and some new perspectives. Obviously, there are many others from whom the committee should hear, and I invite them to submit their comments to the record so that we may have the benefits of their counsel.

For this reason, I ask that, without objection, the record be held open for 4 weeks. On behalf of the subcommittee, I want to thank all of the witnesses and all others who have contributed to our deliberations on this monumental program.

Mr. LONGEST. Thank you, Mr. Chairman, for the opportunity to appear here. We look forward to working with the committee for the next year to meet some of the goals and challenges that you have put before us.

Mr. MINETA. Thank you.

The hearings are adjourned.

[Whereupon, at 1 p.m., the subcommittee adjourned.]

# Association of State and Interstate Water Pollution Control Administrators

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October 30, 1979

Honorable Norman Y. Mineta
United States House of Representatives
Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Mineta:

On behalf of the membership of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), I would like to thank you and your Subcommittee for your interest in and resultant actions concerning the progress and management of the Municipal Waste Water Treatment Construction Grants Program being carried out under Section 201 of the 1972 Federal Water Pollution Control Act.

The hearings scheduled for October 30-November 1, 1979, by the Subcommittee on Oversight and Review, are welcomed ones which we will follow closely. As state administrators, we have long been involved in and concerned with the Construction Grants Program, recognizing and experiencing its strengths as well as its weaknesses.

We appreciate the opportunity to respond concerning the Program and do formally submit "for the record" our Recommendations For An Improved National Water Quality Program, published May, 1979. These recommendations are the result of approximately seven months of research and analysis done by a task group within the ASIWPCA membership.

By September 1978, many ASIWPCA members felt that the nation's water quality program was facing a significant resource squeeze due to the expanding scope and complexity of the program: fixed or reduced federal financial support; constant or declining state financial support; and increased operating costs. In order to address these problems ASIWPCA initiated a project to identify and evaluate water quality management program "streamlining" options. The task group involved in this proceeded to review and analyze the options in an effort to ease the strain on diminishing resources by increasing the cost effectiveness, the efficiency, and/or quality of the program.

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Our "streamlining initiative" included a national membership survey which was used to quantify program information and gain a realistic perspective of the magnitude of the problems. Eighty percent (80%) of ASIWPCA member states responded with problem descriptions and potential solutions. Thus, this document clearly indicates ASIWPCA's concern for the Construction Grants Program and the impact it "has had" and "is having" on the states.

ASIWPCA's position concerning the program and our thoughts as to how it could possibly be handled more effectively are within the pages of our Recommendations. I have also included the US Environmental Protection Agency's draft of their official response to the Recommendations for your information.

Thank you again for your time and efforts concerning this important part of the water pollution control program.

Sincerely,

Charles R. Jeter

Charles R. Jeter
President, ASIWPCA

Association of State and Interstate Water Pollution Control Administrators

# RECOMMENDATIONS FOR AN IMPROVED NATIONAL WATER QUALITY PROGRAM

MAY, 1979

ASSOCIATION OF STATE AND INTERSTATE
WATER POLLUTION CONTROL ADMINISTRATORS
444 NORTH CAPITOL STREET
WASHINGTON, D.C. 20001
(202)624-7782

## I. EXECUTIVE SUMMARY

The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) is a national organization of state officials who have the responsibility for implementing the nation's water quality program.

By September 1978 it had become apparent to the members that the water quality program was facing a significant resource squeeze due to the expanding scope and complexity of the program; fixed or reduced federal financial support; constant or declining state financial support; and increased operating costs. To address this potential, and now real, resource squeeze, ASIWPCA initiated a project to identify and evaluate water quality management program "streamlining" options. The options analyzed had to promise to significantly increase the cost effectiveness, the efficiency, and/or quality of the program, thus easing the strain on diminishing resources.

After seven months of work, ASIWPCA completed its review. The basic portion of the review was a national membership survey to quantify program information and gain a realistic perspective on the magnitude of the problems. Eighty percent (80%) of the member states responded with problem descriptions and potential solutions. In this report ASIWPCA identifies problems that contribute (unnecessarily) to:

- High costs of program administration
- Increased management difficulties
- Inflated cost/burden on those being regulated
- Delays in the achievement of national program objectives and goals.

The Association developed and analyzed a large number of solutions to the problems identified. Of the original 120 options, only 35% met our rigorous selection criteria and were selected to become recommendations. Our initial analysis is presented in Section VI, NATIONAL SURVEY AND RESULTS.

The Association's analyses and recommendations were based on the premise that the objectives of the Act and the program's fiscal integrity should be maintained and not compromised. The Association expects the information presented in this report to be used in a constructive manner to further improve the program to which its members are personally and professionally committed. Recommendations for change have been offered to stimulate serious and positive discussion by the Congress and the U.S. Environmental Protection Agency (EPA) leading to significant enhancements in the implementation of the nation's water quality program.

Due to the magnitude of the Clean Water Act's Construction Grant Program and its operational complexity, special attention has been given to the analysis of that program. The Association's review of this program is presented in Section V, CONSTRUCTION GRANTS PROGRAM: QUALITY PROGRAM INITIATIVES.

Recommendations presented in this report fall into two categories:

1. Legislative Recommendations
2. US EPA Regulatory and Policy Recommendations.

A partial list of those recommendations presented in priority order follows. These are discussed in detail in Section II, PRIORITY RECOMMENDATIONS, while an additional twenty-six recommendations are discussed in Section III, SECONDARY RECOMMENDATIONS.

PRIORITY LEGISLATIVE RECOMMENDATIONS

- Section 205(g) state support assistance should be 2% of Section 207 authorizations
- Construction Grant funding should be appropriated at least one year in advance
- The requirement for State Emergency Contingency Funds should be eliminated

PRIORITY EPA REGULATORY AND POLICY RECOMMENDATIONS

- Simplify the process for, and enhance the flexibility of, Section 106 state program grant awards
- Incorporate treatment, testing and resource constraints in the development of the Pretreatment Program's priorities, phasing and implementation
- Clarify the role of the "Red Book" in the state water quality standards approval process
- Define the purpose of the program policy statements (PRM, SAM, etc.) and include in the development process, those organizations concerned with the implementation of those policies
- Coordinate US EPA policies and requirements dealing with Water Quality Standards (WQS), Advanced Waste Treatment (AWT), and Combined Sewer Overflow (CSO)
- Eliminate the biannual Needs Survey after completion of the 1978 survey
- Allow the use of "general NPDES permits" for "minor" dischargers or discharges with minimal stream impact

- Delegate the NPDES permitting program (Section 402(b)) to the states, in fact, rather than "on paper"
- Focus higher US EPA priority on wastewater treatment plants' operation and maintenance ( O & M)
- Alter and simplify the Step I, facility planning requirements dealing with Infiltration/Inflow: data collection; analysis; and remedial work

In addition to these Priority Recommendations, ASIWPCA believes that to reach the goals of effective and coordinated implementation of the national water quality control program, it is necessary for US EPA to establish a formal communications mechanism with the states and other concerned entities. ASIWPCA recommends that the Administrator establish a Policy Advisory League (US EPA's PAL) with members representing elements of the water pollution control community, to make suggestions and recommendations on program development and implementation.

## II. INTRODUCTION

The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) is a national organization with members representing each of the 50 states, the District of Columbia, three territories and eight interstate organizations. The organization was established in 1963 to provide state officials a forum for communication, cooperation and activities of mutual benefit to its members.

The national policy declared by Section 101(b) of the Clean Water Act prescribes a meaningful role for states in implementing the national water quality program. The members of ASIWPCA represent the state organizations, which on a day-to-day basis, implement the nation's water quality program. Our members know the program in detail; they are familiar with the practical problems of program implementation; with the good and bad features of the program; and collectively manage program resources in both manpower and budget terms, in excess of the US EPA program resources.

Because of the experience, responsibilities and intimate program knowledge of our members, ASIWPCA has an obligation to contribute substantively to the improvement and refinement of the present national program. We are committed to the goal of improved water quality and are fundamentally in agreement with the concepts and major programs of the Clean Water Act, the basic framework established by Congress for administering the Nation's water quality program. The recommendations presented by this report must be interpreted only as constructive recommendations on how to make the program less burdensome, more responsive and less costly to administer.

Our group made a commitment to this initiative in September 1978; established a process and development timetable; and has actively pursued the objective in the intervening months. Meetings of state officials in each of the 10 regions were held in December to discuss the program and develop suggestions. All suggestions were compiled and submitted for preliminary consideration and discussion at a national meeting of member states in mid-February 1979. From this meeting, 120 suggestions were selected for a complete analysis before being submitted to a membership vote. The recommendations presented are those (1) which received a majority vote of the entire association (32 or more affirmative votes) in a national ballot tallied on April 10; or (2) which received a majority vote at the February meeting (19 or more affirmative votes) AND a majority of affirmative votes of the Association Board of Direction in an April 10 meeting (10 of 11 Board members present, requiring 6 votes to adopt a position).

Less than half of the suggestions developed met the rigorous screening process which we imposed on the options to assure the development of meaningful recommendations with broad support from the members and with broad geographic applicability.

The priority of the approved recommendations was established by vote of the Board of Direction on April 10. The priority recommendations presented in Section II include three policy concerns which can only be addressed by the Congress through legislation and ten issues or problems which may be addressed by US EPA through regulation, policy or guidance changes. A complete analysis of those 13 recommendations is contained in Section III, PRIORITY RECOMMENDATIONS.

The other approved recommendations are presented in Section IV, SECONDARY RECOMMENDATIONS as they relate to the program areas of Planning and Standards; Permits and Enforcement; Construction Grants; and Program Management. Each recommendation is also categorized as:

1. legislative recommendations to include policy concerns which can only be addressed by the Congress;
2. regulatory and policy recommendations to include issues which can only be addressed by changes to existing US EPA regulations, guidance or policies.

In establishing these categories, we assumed that US EPA can and will apply the same innovative and administrative talent to refine the program which it has used to develop the program.

Part of this initiative was a questionnaire of member states to learn more about the national water quality program and to develop quantifiable information in support of selected recommendations (Section VI), and the establishment of a special Task Force of members to consider improvements to the Construction Grants activity, Section V, CONSTRUCTION GRANTS PROGRAM: QUALITY PROGRAM INITIATIVE.

Recognizing that the public is concerned with the cost, efficiency and credibility of government on all levels and that these concerns must be addressed on a long term basis, the Association recommends establishment of a formal institutional approach to deal with the problems of the national water quality control program.

A Policy Advisory League (or US EPA's PAL) should be established by the Administrator to review and make recommendations to him on the policy, technical, financial, or efficiency areas of program development or implementation.

The PAL could represent business, state and local government, interstate agencies, labor, and public interest groups.

The group should be given freedom to develop and pursue its own agenda within the water quality program in addition to responding to specific requests from the Administrator. Initially, the group's assignments could include:

(a) Evaluate adequacy of program management review of existing USEPA regulations and guidelines, prior to final promulgation. They would apply the tests of (1) cost effectiveness of implementation and (2) priorities consistent with implementation within existing or reasonably forseeable resources.

(b) Evaluate adequacy of USEPA economic impact analysis for significant new regulations.

(c) Advocate reduced level of details prescribed in regulations to provide opportunity and incentive for exercising innovation by states/local governments in complying with the substance of the requirement.

(d) Evaluate adequacy of alternative approaches considered by USEPA prior to issuing regulation or guidelines.

(e) Make recommendations on how USEPA can:

- expedite flow of paperwork through the organization
- reduce levels of approvals necessary for action
- expedite decisions and resolution of problems identified -- make timely decisions
- insure consistent policy decisions

(f) Advocate changes needed to improve state administrative procedures.

Through communication from the PAL representatives and from their respective interest groups, all entities affected by the program would be provided an opportunity to participate in the formulation and evaluation of the water quality program. Effective communication is a key to maximum cooperation and commitment to effective program management.

The Association will, at EPA's direction, appoint from our membership, experienced state administrators to participate on such a committee and will assist EPA in the administration and management of this group, as necessary.

Through completion of the project undertaken by the Association in September 1978, we have demonstrated that program and management improvements can be identified; that agreement can be reached on the validity and value of suggestions; that often quantifiable information can be developed in support of recommendations; and that the process need not be a lengthy one.

The Association is available to discuss its recommendations and we encourage dialogue on all recommendations. To arrange meetings, briefings, or discussions, please contact Association President Calvin Sudweeks (801/533-6146) or our Washington Executive Director Robbi Savage (202/624-7782).

III. PRIORITY RECOMMENDATIONS

The recommendations in this section were selected by the Board of Direction of ASIWPCA (Board) from the total list of approved recommendations as the most immediate and important recommendations. These recommendations, listed in priority order within the selected categories of legislative (Congressional action) or regulatory and policy (USEPA action), were selected using the following criteria:

1. Improved program management, consistency or creditability.
2. Potential for program cost reduction.
3. Potential to ease regulatory burden.
4. Ease and speed of implementation.

A. Legislative Recommendations.

1. SECTION 205(g) STATE SUPPORT ASSISTANCE SHOULD BE 2% OF SECTION 207 AUTHORIZATIONS.

State allotments for financial support (grants) for construction grants management assistance delegation under Section 205(g) should be based on 2% of the amount authorized by Section 207 of the Clean Water Act rather than the amount appropriated for construction grants each year.

Citation: Clean Water Act Section 205(g)

Basis: Approved by Association Board

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Analysis: When the construction grant management assistance program was incorporated into the 1977 Amendments, with strong state support, most advocates, including members of Congress, anticipated appropriation of construction grant funds at approximately the level authorized by Congress in Section 207. The percentage of allowable funding specified (up to 2%) was determined and agreed to by Congress, USEPA, and the states as a realistic funding level to sustain proper state program operation. There was no discussion or consideration of the impacts of reduced appropriations on the ability of states to accept delegation or maintain delegation with an expanding program and program responsibilities.

Full appropriation was supported by the President; however the pervasiveness of inflation and the nation's austerity mood have caused alteration to this commitment to the water quality program. The "stretch out" approach now being proposed by the Administration works to the disadvantage of those states who responded rapidly to the delegated program and have committed resources to implement an expanded program. Some states are now faced with staff reductions at a time of expanded workload and responsibility.

Benefit: Multi-year commitment of program resources, as recommended, would allow improved staffing arrangements and program management for those states delegated responsibility. The suggested arrangement would provide the continuity needed for other states to pursue delegation agreements. According to a recent Association survey 10 states have accepted

delegation, one of which is adversely impacted by the reduced appropriation proposed by the President in the FY80 Budget. Another 21 states expect delegation by October 1, 1979. Plans of some of these states will likely be changed by the uncertainties recently introduced into the program.

2. CONSTRUCTION GRANT FUNDING SHOULD BE APPROPRIATED AT LEAST ONE YEAR IN ADVANCE.

Citation:

Basis: Approved by membership vote.

Analysis: The Association, National Governors' Association, and National Conference of State Legislators support advance appropriation of construction grant funding for one year ahead. No other Congressional action will affect the Nation's progress toward meeting the goal of clean water as directly and as immediately as the timely appropriation of funds for the construction of publicly-owned treatment works.

Failure to appropriate funds in a timely manner and practicable amounts results in increased costs because of construction delay, interferes significantly with state and regional implementation of Section 208 plans, and erodes the confidence of local elected officials and environmental organizations regarding our Nation's commitment to clean water. Cyclic or eratic funding of construction grants is not conductive to rational construction grant program management. This creates inefficiencies in the grants processing procedures, creates staff

uncertainty and instability, causes indecisiveness among local government officials and artificially escalates the cost of construction due to cycles in contract awards.

Benefit: Funding continuity as recommended will allow states to develop and manage their construction grant program in an optimum way and to solve water quality problems at a known rate.

3. THE REQUIREMENT FOR STATE EMERGENCY CONTINGENCY FUNDS SHOULD BE ELIMINATED.

Citation: Clean Water Act Sections 106(e)(2) and 504(b); SAM-35 dated September 14, 1978; FY80 USEPA program guidance.

Basis: Approved by membership vote.

Analysis: SAM-35 establishes as USEPA policy the requirement for states to have adequate emergency legal authority and financial response capability as a prerequisite for state program grants (Section 106) for FY80. This policy provides that adequate emergency powers include (1) legal authority to seek emergency restraining orders, (2) adoption of formal emergency contingency plans, and (3) availability of emergency contingency funds for response and containment purposes (a new requirement). A schedule for state compliance requires a study as a part of each states' FY 79 Section 106 grant activities, and implementation of any necessary emergency provisions during the FY80 grant year.

The association believes that USEPA (via SAM-35) has misconstrued the language of 106(e)(2) of the Clean Water Act as it relates to new Section 504(b). It appears questionable whether or not Congress intended

for the states to implement 504(b), emergency contigency funding, since it did not reference such a requirement in the Act or the legislative history. A reasonable explanation of this situation is that perhaps an oversight in legislative drafting occurred when Section 106(e)(2) was not also amended to reference just 504(a). Such an amendment would have maintained the previous 106 requirements for adequate emergency legal authority and contingency planning without imposing a new financial burden on the states for emergency funds. In summary, it appears clear that the intent of Congress was to mandate a federal contingency fund to be administered by USEPA without a direct mandate for the states to follow suit; however it is appropriate for USEPA to encourage states to establish such contingency funds.

Benefits: Prevent additional adverse impact on state fiscal resources at a time in which budget authority and constraints are increasing.

B. EPA Regulatory and Policy Recommendations

1. SIMPLIFY THE PROCESS FOR, AND ENHANCE THE FLEXIBILITY OF SECTION 106 STATE PROGRAM GRANT AWARDS.

Improve the Section 106 state grant process; specifically,

a. expedite approval and award

b. provide an annually updated five year water quality strategy

c. provide national and regional program guidance 9 months prior to required plan submission date

d. evaluate state and federal resource implications of national/regional program guidance

e. incorporate special program conditions into the State/Federal agreement

f. provide state option for multi-year program plan, consistent with State/Federal agreement and with annual update revisions to reflect program and output changes

g. consolidate requirements (plans, strategies, agreements, reports) to eliminate excess detail required (work plans, quarterly reports, standardized forms, etc) and eliminate inconsistencies

h. seek environmentally relevant performance indicators to measure state program progress rather than continue the use of surrogate activity indicators.

Citation: Clean Water Act Section 106; 40 CFR Part 35 subpart B; annual program guidance

Basis: Approved by membership vote

Analysis: The change in the federal fiscal year created Section 106 grant fiscal management problems for most states (federal program grant funds for a state program in two state fiscal years). States requiring legislative appropriation of federal funds prior to their availability for expenditure by the state agency are particularly effected. The USEPA regulations call for state submission of preliminary and final program plans and grant applications with ample lead time for state/federal problem resolution - in theory the process should not cause delay in grant award. Timely award of grants is necessary for program continuity, to start the "cash flow" under the grant to maintain the continuity of the program, and in some cases to allow program expansion (though the rate of expenditure cannot be increased until after grant award). More sensitivity to state impacts, attention to problems, and earlier consideration of detail by USEPA is needed to minimize these concerns.

The present Section 106 program grant process is a time consuming, bureaucratic exercise of limited non-financial value to states and of very limited value to the public. Late guidance availabilfty and Public Notice requirements, when combined, preclude effective public participation in the development of preliminary plans; precludes effective coordination with most state budget cycles; and require implementation resources far in excess of those available or likely to be made available (state program resource levels are generally established prior to issuance of the guidance). The work plans are in large part redundant from year to year because of the many activities which continue from year to year. Over time the program plan approaches "boiler plate".

Imposition of unilateral special grant conditions are not constructive, impose significant constraints on state management options, and increase frustration and tensions. Such conditions, if required, should be negotiated and contained in the State/USEPA agreement so that more timely and acceptable response or management options can be developed by the state. Conceptually the State/USEPA agreement offers an opportunity to consolidate requirements; reduce redundant and excessive paperwork; simplify state reporting requirements and resolve inconsistent requirements. The potential effectiveness of this concept could be enhanced by providing for multi-year program plans with only annual updating.

Benefit: Improved state fiscal and program management, more state resources applied to environmentally relevant activities. More effective and publicly understandable program orientation. The trend toward increased program resource dedication to unnecessary management activities must be broken and, hopefully reversed. In one member state, program management costs have increased 56% over 5 years; while total program resources have not grown at anywhere near this rate.

2. PRETREATMENT PROGRAM PRIORITIES, PHASING AND IMPLEMENTATION SHOULD INCORPORATE TREATMENT, TESTING AND RESOURCE CONSTRAINTS.

Redesign the present pretreatment program to use priority, phasing, and implementation dates which recognize available treatment techniques, status of testing methodology and implementation resource constraints. This important program must be designed for management utilizing likely available (existing and future) resources and for expansion of existing local program.

Citation: 40 CFR Part 403 - Pretreatment Regulations; NRDC vs. Train Consent Decree; 40 CFR 35.907, .917-1, .920-3 - Construction Grants Program; Clean Water Act - Section 307(a)(1) and 402(b)(8).

Basis: Approved by Association Board.

Analysis: If the pretreatment program defined in 40 CFR Part 403 were to include all sizes of primary industries, we estimate that nationally, 260,000-350,000 industrial facilities could be involved. USEPA maintains that the number to be regulated would not exceed 30,000. However, no rationale has been provided for this estimate. The regulations now require states to commit to implementation of a program without information to adequately determine the resource implications of that commitment.

The regulatory program includes 65 classes of heavy metals and organic pollutants for 21 industrial categories. USEPA has indicated that the currently promulgated pretreatment requirements may be revised; hence no means exist for knowing which pollutants or which of those industry subcategories will finally be regulated. Projection of laboratory capabilities needed by either the municipalities or the states at present is sheer speculation.

A time phased program is necessary to develop a meaningful and implementable nationwide pretreatment program. Such a program could phase-in the requirements of heavy metals immediately, large dischargers ahead of smaller dischargers and defer the control of organic pollutants until more data, analytical methods and treatment techniques become available.

Benefit: Few states have the necessary resources (even as a result of 205(g)) to implement the pretreatment program as currently required by federal regulation. A recent survey by the Association indicates that only 10 of 36 (28%) responding states consider the present program feasible for implementation. The balance indicated a need to modify the program. Twenty-two states (61%) have necessary legal authority to implement the pretreatment program. Sixteen states (44%) have access to analytical capability for analysis of all priority pollutants; however our members report that only 10% of the publicly owned treatment works over 5 MGD (mandatory program) have laboratory capability to analyze samples for all priority pollutants. Only twenty-three states (64%) have the estimated resources to implement the current pretreatment program.

Twenty states reported detailed information as part of the survey estimating 418 person years are necessary for program implementation compared with 73 person years available -- an average resource shortfall of 83%. Five of the 20 states reporting detailed information indicated that program resources of 19 person years were needed and available. Viewed differently, fifteen states reported a resource shortfall from the level needed to implement the present pretreatment program of 399 person years (84%) requiring additional state program resources of over $8 million per year. The anticipated problems occur predominantly in the industrialized states.

Failure to alter the program will result in (1) the withdrawal of the NPDES authority from some states (which may not be a viable option since USEPA does not have the resources to administer the program) or (2) a poorly run program by a number of states. With a phased, rational program it would be possible to implement a program now and provide an expanded scope over time.

USEPA is making decisions on the required level of industrial treatment (which could cost billions of dollars) with a very short period of time and with what appears to be scanty information at best. If a more reasonable schedule could be established, we believe USEPA could establish meaningful limitations with the necessary balance between both industrial impact and environmental/public health protection.

3. CLARIFY THE ROLE OF THE "RED BOOK" IN THE STATE WATER QUALITY STANDARDS APPROVAL PROCESS.

Clarify the intended use of the "Red Book". Is the document criteria, formal guidance or regulation? Address and clarify the problem which exists between water quality standards and available state of the art laboratory measurement methodology (exclude research and development technology). Do state adopted water quality standards represent goals or enforceable standards?

Citation: Section 304(a) and related guidance

Basis: Approved by membership vote

Analysis: The foreword to the "Red Book" contains the statement "the criteria presented in this publication should not be used as absolute values for water quality." The USEPA policy guidance (Federal Register,

July 10, 1978; page 29588) also indicates that "Red Book" limits do not take into account the variability of waters from state to state and therefore states are not required to adopt "Red Book" numbers for all waters.

However, numerous comments in the July 1978 policy guidance and USEPA attitudes and actions in other forums (including review of recent water quality standard revisions make it clear that at best, it is difficult, if not impossible, for states to adopt water quality standards numerically different from those contained in the "Red Book." This position is achieved by EPA by interpreting the criteria contained in the guidance ("Red Book") as "presumptively correct" and subject to change only upon presentation by the state of overwhelming contradictory information (application of manifest weight of the evidence principle).

The "Red Book" currently contains criteria on 48 specific parameters. USEPA is preparing water quality criteria for each compound or class of compounds on the toxic pollutants list (originally 65 and recently expanded to 129). USEPA has indicated a tightening of their already stringent policy of disapproving state adopted water quality standards any less stringent than "Red Book" criteria and promulgating (pursuant to section 303) "Red Book" criteria in their place. In the past, USEPA was concerned primarily with conformance or approval of water quality standards which the states adopted; however now they appear to be

unilaterally using the 48 "Red Book" parameter criteria plus selections from the toxics list as minimum standards for state adoption or alternative federal promulgation.

While federal law requires states to review and revise water quality standards periodically, USEPA has effectively minimized the states' ability to tailor the standards for local conditions. The flexibility intended by the authors of the "Red Book" is not reality. Stiff opposition is given any relaxation of certain water quality parameters (D.O., ammonia, phosphorus, iron, lead) to levels that can be achieved under existing hydrologic conditions and land use patterns in a stream reach. Also, USEPA has established water quality criteria for many parameters. at or near limits of analytical detectability contributing to technical problems in the laboratory, to increasing cost and to an inability to determine compliance.

Benefit: Adoption and approval of realistic, attainable (considering local conditions), measurable and technically valid water quality standards is the foundation of the non-technology forcing aspects of the national water quality program. Waste load allocations, non-point source control measures, POTW discharge requirements, and many other enforceable requirements are determined using water quality standards as a base. The cost of the program, particularly the construction grant program, is significantly impacted by water quality standards and the degree to which these standards reflect the "attainability" of the goals of the national program.

Examples of USEPA establishing water quality standards are rare; however USEPA exerts and exercises significant control over state adopted water quality standards through their approval/disapproval authority pursuant to Section 303 of the Clean Water Act.

4. DEFINE THE PURPOSE OF THE PROGRAM POLICY STATEMENTS (PRM, SAM, etc.) AND INCLUDE IN THE DEVELOPMENT PROCESS THOSE CONCERNED WITH THE IMPLEMENTATION OF THOSE POLICIES.

USEPA should reevaluate the concept of and redefine the development procedures for program policy statements (PRM, SAM, etc.) currently being interpreted to have the force of regulation in program implementation yet they are developed internally and in some instances contrary to existing law or regulation.

Citation: None

Basis: Approved by membership vote

Analysis: The Association members understand the need for policy statements to resolve problems, communicate with those administering the program and achieve consistency in managing a decentralized program. We support and encourage such efforts. Currently USEPA uses such guidance to clarify technical issues, establish program and funding priorities, determine funding eligibilities (or allowables), interpret the law or regulations (consistently or otherwise), standardize procedures, establish policy, etc. Because these statements are normally developed internally, without prior consultation, comment or input and unilaterally published with limited distribution we believe the system must be reviewed. This review should lead to: (1) constraint of policy statement applicability to more selective administrative areas not significantly impacting the publicly announced intent of the program; (2) provide an opportunity for

impact assessment and comment by those expected to implement or affected by the requirement prior to the effective date; (3) prepare the documents in brief, understandable language; (4) provide broader distribution of the information; and (5) provide a system of periodic review, reissuance, revision or cancellation of the documents. Agencies with delegated program implementation responsibilities must, at a minimum, be provided an opportunity to participate in the development of policy statements.

Benefit: Improved program administration, support for USEPA policies and public understanding of the program priorities and focus. The diminishment of confusion, uncertainty and conflict will improve working relationships, improve speed and efficiency of decision making thereby reducing cost and develop more stability in program implementation.

5. COORDINATE USEPA POLICIES AND REQUIREMENTS DEALING WITH WATER QUALITY STANDARDS AND ADVANCED WASTE TREATMENT (AWT) AND COMBINED SEWER OVERFLOW (CSO).

Achieve consistency between basic USEPA policies and requirements relating to water quality standards, and AWT and CSO project eligibility for construction grant funding.

Citation: 40 CFR Part 133, PRM 75-34, PRM 79-7, Sections 302, 303 and 304(a) Clean Water Act, 7/10/78 FR 29588, and related guidance.

Basis: Approved by membership vote.

Analysis: Over the past several years, a very important and fundamental conflict has been developing in the national water quality program. The conflict remains unresolved, unaddressed and largely ignored by USEPA even though the problem grows worse. On the one hand,

there is strong concern for stringent, relatively uniform and inflexible water quality standards. This position is clearly portrayed in the July 10, 1978 USEPA statement in the Federal Register. On the other hand, there is growing concern within USEPA and elsewhere (Congress, GAO and others) regarding cost/benefit and cost/effectiveness considerations of the water quality program. Positions expressed in PRM 75-34, Combined Sewer Overflows, and PRM 79-7 Advanced Wastewater Treatment are clearly manifestations of the magnitude of the concern. Bureaucratic considerations aside, environmental reality dictates that without adequate funding, AWT projects will not be constructed and many stream segments will not meet standards. Also, without more realistic, selective and attainable standards, many stream segments will continue to attract funding for projects of questionable value in terms of water quality improvement. If USEPA is serious about cost/benefit considerations, the water quality standards (beneficial uses and numerical criteria) should be evaluated in relation to specific stream segments using cost/benefit considerations as an evaluation technique. Once these more basic evaluations are completed, then cost effectiveness analysis can appropriately be used to determine the best treatment project configurations.

Such an approach can be interpreted as addressing a definition of "wherever attainable" as provided for in Section 101(a)(2) of the Clean Water Act. Such an approach is consistent with the national water policy announced in June 1978.

Guidance or regulation is needed to interrelate the requirements for point/non-point sources from both public and private sectors within the framework of the relevant socio-economic and environmental setting.

The present conflicting, confusing, policies should be changed without further delay.

CSO projects are now subject to lengthy delay and increased construction cost due to vague, inadequate definition of the information required for proper decision making. PRM 75-34 describes a concept which is subject to wide interpretations by USEPA regional offices, states, grantees and consulting engineers. Consideration of the characteristics of each individual system may be desirable or necessary to determine the level of treatment required from an investment perspective, but construction of a project which after completion causes or contributes to a violation of state adopted, federally approved, water quality standards is clearly counter-productive. The "benefits" in the required analysis should be defined as attainment of water quality (to simplify the analysis) or alternatively the water quality standards should be changed to reflect the investment decision.

Consideration should be given to limiting the required analysis to only larger communities where a significant savings may be realized. For those communities of less than 10,000 population, no analysis should be required. Often, the local consultant who handles a project of this size does not have the expertise for the required monitoring program and/or

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study nor does the potential savings justify the expenditure of additional planning funds and the 12-18 months delay experienced by these projects.

Benefits: A saving in planning costs and associated review time would be realized. Currently, a typical preparation period just for a plan of study for a CSO study requires 2-6 months with 2 meetings and numerous phone calls to arrive at an acceptable study. Implementation of the study including monitoring where necessary, preparation of the analyses, review and approval often requires 12-18 months. The potential savings of construction dollars would be significantly less than the loss of spending power caused by inflated dollars.

More importantly, appropriate resolution of these program conflicts will improve program validity and enhance municipal official (perhaps also the public) understanding and confidence in the program objectives.

6. ELIMINATE THE BIANNUAL NEEDS SURVEY AFTER COMPLETION OF THE 1978 SURVEY.

Eliminate needs survey after completion of the 1978 survey. Thereafter, determine national needs based on economic update of existing information and based on cost information from completed and approved facility plans as part of the procedures required for administration of state project priority lists.

Citation: Clean Water Act Section 516(b)(1); PRM 79-6; 40 CFR 33.915

Basis: Approved by Association Board

Analysis: USEPA has recently completed the "1978 Survey of Needs for Publicly-Owned Wastewater Facilities", the fourth such national survey

conducted since 1973. The avowed purposes of these efforts were to (1) provide a data base upon which estimates of national and state wastewater treatment needs could be established to guide Congress in its allocation of grant funds; and (2) define the financial needs to complete the national program. The original intent was to determine actual dollar needs for selected communities in each state, and utilize this data to estimate total state needs. However, USEPA desired to have a data base for every community in the nation, and in suceeding surveys, has pushed for this goal, first on a voluntary basis, and finally on a compulsory basis in this latest survey.

If the 1978 survey has accomplished its goal, then USEPA now has in its data processing system basic information on projected populations, categorized dollar needs, and existing and proposed wastewater facilities for all communities which might require assistance under the Clean Water Act. Thus, if the data bank is kept current on grant expenditures, and inflation, the USEPA should be able to generate an accurate estimate of needs at any given time.

The required 2 year frequency for needs surveys is too short to reflect any significant change since few applicants can have their needs partially or completely satisfied in that time. To date the significant changes to the survey results reflect expanding statistical sample and changed assumptions and survey methodology rather than any real change in needs. The most valid method of assessing needs is through compilation

of results from completed facility plans in which local problems are identified, studied in detail and cost effective evalatuions determined. Recently issued PRM 79-6 approaches use of this procedure and should be fully implemented in FY80, thereby eliminating justification for further surveys.

Congress has established the allotment formulas through currently authorized funding (1982) and need not make further adjustments until new authorizations are considered. Also, in the last two years, the level of appropriations for the construction grant program by the Congress have been determined utilizing criteria other than program "needs".

Benefits: Elimination of these national surveys would be beneficial in that some effort could be removed from the USEPA Budget or diverted to better use. Recent surveys have required the commitment of less state program resources than the earlier surveys; however, state agencies must continue to commit manpower to assist in the collection and evaluation of survey data. The need for further refinement of the needs survey is questionable; actual total estimate of needs will not be known until the last facility plan is approved.

The total cost of the needs survey is not known, though states estimate that at least $0.5 million state program resources could be shifted into other more relevant activity if the FY80 survey were stopped.

7. ALLOW THE USE OF "GENERAL NPDES PERMITS" FOR "MINOR" DISCHARGERS OR DISCHARGERS WITH MINIMAL STREAM IMPACT.

USEPA should provide flexibility in the NPDES permit program to allow, by agreement with states, use of a general permit (single permit for multiple sources) for "minor" discharges, discharges with minimal receiving stream impact, or other minor discharges.

Citation: Clean Water Act Sections 301(a) and 402; 40 CFR Parts 123, 124, 125; USEPA guidance.

Basis: Approved by Association Board

Analysis: Section 301(a) of the Clean Water Act requires that all discharges to navigable waters, regardless of size, secure and maintain a valid permit from USEPA or a state delegated permit authority pursuant to Section 402(b) of the Clean Water Act.

When the NPDES permit program began in 1973, neither USEPA nor most states possessed sufficient information, data or program information to initiate a simpler general permit program for small discharges, (a general permit would include multiple discharges of a similar size, type or class of facility, owned by different persons in a prescribed geographic area, such as state, basin, segment or stream reach as appropriate for control of pollutants) or to develop generic requirements or conditions suitable for such categories of discharge. Program priorities, to best use available but inadequate resources, focused primary attention on the larger ("major") dischargers. Both these decisions were probably correct for that time; however, after years of operating experience with the program, with the states and with the permittees, we urge reconsideration of this position to allow a more flexible approach.

USEPA should enter into agreements with each state desiring to use this concept (possibly as a part of the State/Federal agreement, or alternatively as a part of the NPDES permit authority delegation

agreement) authorizing the issuance of general permits for selected, identified and agreed upon categories or sizes of discharge. As an example, general permits by mutual agreement could be considered for any discharger not meeting any of the following criteria:

a. Major dischargers per agreement between USEPA and the state.

b. Non-contact cooling water discharge with flow in excess of 1 MGD.

c. Industrial discharge not containing toxic pollutants with flow greater than 0.1 MGD.

d. POTW discharge from facility treating residential/commercial wastes with design organic capacity greater than 10,000 P.E.

The Clean Water Act does not appear to prohibit the issuance of a general permit. Certainly specific mass discharge limits required by 40 CFR 124.43 could cause administrative problems but with a positive constuctive approach,with USEPA and the states working together these problems can be resolved to provide an improved program.

Benefits: Use of the general permit concept will allow existing state and USEPA resources to be redirected into more relevant water quality program activities. The regulatory burden and cost to the permittees included in such a program would be reduced, primarily impacting small business and small communities.

In response to a recent association survey thirty-nine states responded to the questions relating to NPDES permits, 24 of the states responding were administering delegated permit programs. These states reported 41,898 issued NPDES permits 5808 (14%) which were issued for

discharges from "major" facilities; 6689 (16%) of which were issued for discharges from lagoon treatment systems (generally small); 4892 (12%) of which were issued for discharge from non-contact cooling water sources with flows less than 1 MGD; and 9702 (23%) of which were issued for discharges from mechanical treatment facilities with flow less than 0.1 MGD. Fifty-one percent of the currently issued permits in these 39 states could be considered for inclusion into the general permit concept. The states reported 768 person years devoted to NPDES permit program activities and estimated that 19.6% of these resources could be available for reassignment through implementation of a general permit concept. Therefore, at least $3 million per year of program resources could be made available for implementing the pretreatment program (150 person years) or other high priority activites.

8. DELEGATE THE NPDES PERMITTING PROGRAM (SECTION 402(G)) TO THE STATES, "IN FACT," RATHER THAN "ON PAPER."

USEPA should implement an effective, in fact, delegation of the NPDES program resonsibility to states (Section 402(b)) as has been done for construction grants management assistance (Section 205(g)).

Citation: Clean Water Act, Section 402, 40 CFR 124 and 125, and USEPA policies.

Basis: Approved by membership vote

Analysis: Significant differences exist between the nature and extent of the program delegation to states and USEPA overview role under Section 402 (NPDES) and Section 205(g), (construction grants management). The NPDES permit program delegation is actually

"semi-delegation" requiring joint, Federal/State activity before outputs are accomplished. In NPDES, program authority and decision making is not delegated. Program review under NPDES is ongoing and case by case with considerable interaction required between regional and state personnel with constant potential for independent action (veto) by USEPA. On the other hand, the construction grants program is full delegation based upon approved review checklists and procedures with after the fact program audit for each activity. Under this latter approach, once a Region agrees that the state is ready (adequate resources and training) to assume responsibility for a particular activity, the full function is delegated to the state without the continuation of multiple, joint activites. In retrospect, these opposite approaches probably grew out of (1) basic differences in outlook in the respective divisions of headquarters USEPA and (2) the priority given to expeditious implementation of the NPDES permit program. (Developing program procedures and requirements, training USEPA personnel and developing state capability during an implementation of a program is extremely difficult with significant opportunity for inconsistency and institutional conflict). However, regardless of the historical background leading to these divergent approaches, the Federal/State partnership under the water quality program has now surely matured to the point where different techniques can be utilized to continue the evaluation of a constructive, effective program.

Benefit: Substantial time and resource savings could result from implementation of a full delegation of authority, responsibility and accountability in the NPDES permit program. At present, USEPA maintains in their regional offices nearly concurrent operations for all major discharges which approximately doubles the necessary resources devoted to these facilities.

The recent survey of Association members shows the following indications and extent of joint resources being applied to the same activity.

| Activity | % of States Reporting Joint Activity |
|---|---|
| Permit review - major discharge | 53 |
| Permit review - minor discharge | 41 |
| Review/action - discharge monitoring report - major | 70 |
| minor | 29 |
| Review/action - notice of non-compliance - major | 47 |
| minor | 27 |
| Review/action - compliance schedule reports - major | 56 |
| minor | 26 |
| Action - Enforcement Orders - major | 45 |
| minor | 19 |
| Compliance sample inspections | 59 |
| Compliance evaluation inspection | 56 |

No attempt has been made to quantify the extra program cost incurred by joint activities because USEPA cost information is not available.

The information suggests considerable duplication in program administration. This was to be expected in the early phases of the permit program implementation (about 1973 - 1976) but does not reflect any significant management shifts as the program has developed. We suggest that the degree of duplication should be essentially zero for all activities relating to minor dischargers and should be in the range of 10-20% for major dischargers (as a quality control). Thirty-nine states responded to the recent association survey and reported 760 person years of effort devoted to the NPDES permit program. Of these, 24 states have been delegated permit authority and account for 620 person years of activity. Therefore, NPDES states reporting devote an average of 25.8 person years to the program while non-NPDES states devote an average of 9.9 person years, 62% less.

9. FOCUS HIGHER USEPA PRIORITY ON WASTEWATER TREATMENT PLANTS' OPERATION AND MAINTENANCE (O&M).

USEPA should place higher program priority on effective operation and maintenance of wastewater treatment plans including technical service and training.

Citation: Clean Water Act Sections 101 and 104

Basis: Approved by membership vote

Analysis: Many facilities throughout the nation are staffed and operated with inexperienced or inadequately trained personnel. Because of this, many facilities, including a majority of treatment works constructed with funds from the construction grants program are being operated at performance levels below capability or are being inadequately maintained. Many communities, particularly those in the classification "minor" discharger, cannot (or think they cannot) afford the costs of adequate operator training. Most of the operators cannot afford to pay for training out of their own income. The construction grant program allows eligibility for "start-up" training. However, the training provided is usually (1) limited in scope and does not include "basic or general" training (the major deficiency); (2) performed by the design consultant which raises questions of both appropriateness (trainer qualifications) and cost-effectiveness; and (3) only made available to facilities now under construction and not to non-grant or previously constructed facilities. Evidence supports the hypothesis that if adequately operated and maintained, many POTW's would require limited or no improvement rather than extensive modification or total replacement. Adequate operation and maintenance will also increase the service life of the treatment facilities.

Over the past several years, USEPA has reduced its manpower development and training resources in their regional offices (from four to one professional in Region V). Little assistance in manpower development and training can now be expected by State or local

governments. The USEPA view continues to shift responsibility for operator training to state and local governments with little technical or financial support while at the same time resisting state efforts to expand the assistance activity as a part of the States' water pollution control program under Section 106. USEPA knows that POTW owners are required by law to comply with permit requirements and apparently believes that monitoring/inspection/enforcement are the only (or best) procedures to obtain compliance. In general, state agencies perceive a role for both assistance and enforcement activities and use both techniques to achieve compliance. USEPA needs to be more willing to seriously consider the assistance/enforcement "trade off" in state resource priorities. Lack of program emphasis, including adequate financial support, in the operation and maintenance of wastewater treatment plants and technical service may thwart our national water quality goals, preventing expended grant funds from fully accomplishing their intended purpose.

Another aspect of this problem requiring consideration is the capability to improve the skills of local elected officials in making the management decisions (including financial) of the local public utility. Many elected officials do not currently know how to establish an appropriate budget while others are reluctant to get involved in the management of their local utility. This will be a different and difficult area of training to undertake - but State experience has demonstrated time and again the need.

Benefit: Improved operation of wastewater treatment plants, longer plant life, improved, more informed, local decisions.

10. ALTER AND SIMPLIFY THE STEP I. FACILITY PLANNING REQUIREMENTS DEALING WITH INFILTRATION/INFLOW; DATA COLLECTION: ANALYSIS: AND REMEDIAL WORK.

USEPA should revise and simplify present requirements and procedures relating to data collection, analysis and remedial work to remove extraneous clear water from sewer systems as part of the Step I Facility Planning tasks in the construction grant program.

Citation: Clean Water Act Section 201(f)(3); 40 CFR 35.917 and 40 CFR 35.927; PRM 78-10; and USEPA policy

Basis: Approved by Association Board

Analysis: The present system requires preparation of an Infiltration/Inflow analysis (I/I) followed by approval of the conclusion by the State and USEPA. If Infiltration/Inflow is possibly excessive (the case in 72-78% of analysis reviewed by the states in 1978 according to an Association survey), upon agreement by the State and USEPA, the applicant proposed scope of additional work and grant amendment, the applicant carries out a sewer system evaluation survey (SSES) and submits the conclusions to the State and USEPA for approval. If the sewer system survey recommends a rehabilitation program for the sewer system, Step II and Step III grant procedures are followed for this phase of the project; however, rehabilitation work does not necessarily proceed on the same schedule as the major POTW project.

Significant delays in completion of facility planning result from: (1) the I/I and SSES dependency upon obtaining acceptable ground water

table and rainfall conditions and (2) time for State and Federal agency reviews (in 1978 an average of 8 months according to a recent Association survey). The I/I analysis presents a limited view of the condition of the collection system and the existence of possibly excessive I/I. Because of the high percentage of I/I analysis concluding possibly excessive flows, little risk of unnecessary planning exists by allowing at the consultants' option minor cost elements including flow monitoring, physical survey, and rainfall simulation as part of the I/I analysis; Phase 2 would include sewer cleaning and internal inspection (normal by TV); limited sewer rehabilitation such as sealing manhole covers; raising manhole cover elevations and other simple, low cost items; correction of which is necessary in the judgment of the consulting engineer; and a final report.

Following completion of Phase 2 and approval of the conclusions of the final report by the State and USEPA, the facility plan can be completed and approved. Those grantees in priority for funding the Step II and Step III project, including any rehabilitation component, can proceed. For those grantees not in priority for immediate funding for the Step II and Step III project, consideration should be given to the sewer rehabilitation portion of the program through Step II and III as appropriate. When priority for funding is achieved, the major project can proceed; however, in the meantime the existing facility's operation would have likely improved as a direct result of

removing the extraneous flow. In some cases the rehabilitation work can be carried out by the grantee by force account, normally at reduced cost, provided such practice is approved by USEPA.

Benefits: The time required for completion and approval of the facility planning could be shortened by 8 months or more with little likelihood of expending unnecessary planning funds.

As more SSES are submitted, fewer sources of I/I are located by internal inspection and of those located, cost-effective rehabilitation is frequently questionable. Cleaning and internal inspection costs (the most costly phase of a SSES) will be decreased because of the reduced impact of inflation due to project delay or because of elimination of the tasks from the project scope.

Assuming construction cost increases at 1% per month, 8 month delay saved, and 72% of the I/I analysis concluding "possibly excessive" translates into a $102M cost reduction for those projects scheduled for construction from FY79-82 construction grant authorizations
Since all states did not respond to the recent survey, this is a conservative estimate of potential program savings.

## IV. SECONDARY RECOMMENDATIONS

The following streamline recommendations were approved by vote of the membership or Board but not included in the priority category. The 26 proposals identified as "secondary recommendations" were screened from the original pool of 120 streamline suggestions considered by the membership. These recommendations are divided into legislative and regulatory and policy categories. The regulatory and policy category is further organized by broad programmatic areas.

### A. Legislative Recommendations

1. Modify the Goal of the Act to Reflect More Realistic and Attainable Considerations (Association position adopted 1977).

   Specifically, the Association recommends that Section 101(a)(1) be amended to read:

   > "It is the national goal to obtain maximum recycling and recovery of water and other wastewater components to the extent consistent with sound environmental practices, public health, energy, and economic constraints."

   Citation: Clean Water Act, Section 101

   Basis: Approved by membership vote

   Analysis: Since enactment of PL 92-500, the Congress has become more aware of the economic impact of attaining the interim 1983 goal of the Act (National Commission on Water Quality report, USEPA needs survey information, 305(a) reports from USEPA, testimony, etc.). In program strategy development, policy decisions impacting program implementation and resource priority development by USEPA, increasing use is made of the

benefit/cost concept. The Clean Water Act is silent on the use of economic considerations in decision-making processes leading to compliance with the Act - except for a specific reference in Section 302 dealing with discharge requirements more stringent than BAT. Use of economic considerations is encouraged by the Association and we support appropriate, selective use of economic criteria under the direction of the Congress.

A national goal, as stated in the Act, should be attainable. The incorporation of a specific date for compliance clearly indicates an intention and commitment to actually attain the goal. However, the present goal is unrealistic and unattainable and, therefore, lacks credibility, even as a goal. The complete elimination of the discharge of pollutants will not likely occur considering the quality and character of pollutants contained in nonpoint source discharges. This section may be interpreted to (1) require all wastewater to be distilled or purified to an equivalent extent prior to discharge; (2) require no discharge; (3) require removal of only those constituents that were added to the water as it was used (National Commission on Water Quality), or (4) mandate land application to remove some pollutants from the waste stream while adding to soil contamination and increasing groundwater pollution potential.

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Because varied and confusing interpretations are presently given to this section of the Act, the Association suggests that Congress consider and clarify its intent.

The elimination of pollutants from a discharge is certainly desirable where it can be accomplished practically. The report of the National Commission on Water Quality concludes that the technology is available, or will become available in the forseeable future. However, the Commission admits that "the processes currently available are prohibitively costly, energy intensive and create large quantities of residual which must be disposed of in some way other than into the water." Over the past few years, more detailed information concerning the costs as well as the economic and social impacts of this goal have developed as have a restructuring of priorities in other areas of social concern at the Federal, state and local government levels. Such factors must be considered by the Congress in its review, clarification and reassessment of this national goal.

Benefit: Overall clarification of the direction of the national program and critical policy guidance to USEPA and the states for all program areas.

2. Limitations on Project Sizes Qualifying for Combined Step II - Step III Grants Should be Changed in 1979 from $2M/$3M to $5M to Reflect Increased Construction Costs.

Analysis: The suggestion is based upon the assumption that the federal construction grants program mandated under the 1972 and 1977 Acts is designed as a "one-shot" cleanup effort to get local communities back on track. Once this catch-up job is complete, it is envisioned that these communities will front-end future treatment expansion and/or improvement as local needs dictate. However, much experience to date indicates potential problems with this approach. Some communities are already incurring major, long-term debts in order to finance the initial local share. Under these conditions, there is a question whether or not these communities are going to be in position to operate a self-supporting wastewater treatment system. Thus, some additional relief could be provided via the ICR program by having the federal share retained by the municipality. Restrictions on the use of these funds could include use for treatment works upgrade or expansion.

Benefits: If this change were to take place, state and federal agencies would not be required to monitor the collection of their share. This would result in savings in staff resources. Additionally, this change would provide a new revenue source for local governments. With these funds municipalities would have more opportunity to be self-sustaining in their waste treatment operations. Accountability could come through periodic audits and at such time as the municipality requested grant funds again.

cost of projects since adoption. Alternatively, the Association reiterates its legislative position of 1977 that the level should be increased to $5M - a more appropriate level.

Citation: C.W.A. Section 203(a)

Basis: Approved by membership vote

Analysis: The concept as proposed was designed to expedite small community projects and reduce the paperwork and "red tape" for this category of projects. Although use of this procedure has not been widespread yet, the concept remains valid and should be continued. Decreased appropriation levels of construction grant funding and the newness of these grants has retarded their use. USEPA estimates that project costs are increasing at 17 to 20 percent per year and over two years have passed since the cost ceilings were established. They need to be revised to reflect increased cost and to include a larger segment of projects.

Benefit: Small projects can continue to be expedited and paperwork simplified for communities needing the most assistance in meeting the requirements.

3. Allow the federal share of industrial cost recovery (ICR) to be retained at the local level to accelerate payment of debt on facilities and help prevent future short fall in adequate treatment.

Citation: C.W.A. Section 204(b)(3) and 40 CFR 35.928-2

Basis: Approved by Association Board

4. Allow Partial Delegation of the NPDES Program Pursuant to Joint Federal/State Agreement.

Citation: Section 402 of the Clean Water Act and 40 CFR Parts 124 and 125

Basis: Approved by Association Board

Analysis: USEPA maintains that the NPDES delegation must be an all or nothing proposition. Thus, under formal memorandums of agreement the states are required to conduct all NPDES functions, including permitting, compliance monitoring and enforcement, for all dischargers both major and minor. However, in spite of this full, "paper" delegation, USEPA maintains joint review and involvement over major dischargers. This initial approach may be justifiable from a historical perspective in that USEPA felt more oversight was necessary during the first round of permitting and enforcement under NPDES.

Given the extensive interaction between the regions and the states and the program development these past five years, it would now seem appropriate to pursue new program alternatives that are more efficient from a resource perspective. Partial delegation would open the way for the regions and the states to distribute the workload (State/Federal agreement, major/minor or type of discharge) and prevent unnecessary overlap and duplication.

Benefit: Savings in resources could accrue from reduction of overlap and duplication of effort.

5. Modify Section 302 of the Clean Water Act to Provide a More Effective Means of Achieving a Reasonable Balance Between Benefits and Costs of Water Quality Requirements.

Citation: Section 302 of the Clean Water Act

Basis: Approved by Association Board

Analysis: There has been a recent trend by many sources to question the relationship between the benefits and costs associated with attainment of water quality goals and standards. One example is the recent action by the Appropriations Committee to place a special AWT review requirement on USEPA. However, this approach attacks the "problem" from the end of the pipeline at the stage where grants are being considered for funding of specific projects. It also raises the potential dilemma of projects/grantees being pushed to meet certain enforceable requirements without adequate funding assistance.

The states feel that this matter should be addressed at the front-end which involves the standards, wasteload allocations, and permit processes. It is at this initial point that one should attempt to establish and maintain a proper balance between protection of water quality and consideration of the costs associated therewith. Accordingly, Section 302 could be revised to:

a) Allow the States to initiate the formal review of the reasonableness/achieveability of water quality for designated stream segments given cost considerations.

b) Apply 302(b) considerations to publicly-owned treatment works as well as industrial discharges.

c) Provide that the analysis of the reasonableness of the costs of attaining water quality standards may be initiated on a segment wide basis prior to initiation of permit issuance procedures or Step I grant awards.

Benefit: Anticipated savings in public and private funds where benefits cannot be shown to justify the costs.

B. Regulatory and Policy Recommendations

(Planning and Standards)

6. Clarify Procedures for Determination and Utilization of Maintenance of Minimum In-Stream Flows and Low-Flow Augmentation.

Citation: Clean Water Act, Section 102, and USEPA policy

Basis: Approved by membership vote

Analysis: Paragraphs 102(b)(1) and (b)(3) of the Act require USEPA to analyze the storage and release aspects of Federally funded multiple use reservoir projects as they affect water quality and downstream wastewater treatment needs. Paragraph 102(b)(1) specifies that "storage and water release shall not be provided as a substitute for adequate treatment," but neither prohibits nor discourages utilization of low flow augmentation for water quality management. P.L. 92-500 recognizes potential water quality benefits from

low-flow augmentation as a valid use in multiple use reservoirs and identifies determination of "the need for, the value of, and the impact of, storage for water quality control" as one of USEPA's responsibilities. Apparently, USEPA Office of Water Planning & Standards has developed an across the board policy of opposition to low flow augmentation for purposes of water quality management. This policy seems to be based on the belief that relaxation of effluent requirements made possible by low flow augmentation is contrary to their fundamental opposition to dilution as an alternative to treatment.

This potential problem could be eliminated by recognition of a baseline or minimum degree of control required of all point sources. The federal program already has such a baseline in the form of BPT for industries and secondary treatment (40 CFR 133) for POTW's. One could make the argument that the term "adequate treatment" contained in paragraph 102(b)(1) refers to BPT and secondary treatment. Within this context USEPA (with input from the states) could and should establish criteria for evaluation of low flow augmentation as a cost effective and desirable alternative to advanced wastewater treatment.

Benefit: Savings in wastewater treatment costs.

7. Coordinate of 208 Planning with 209 Planning, With RCRA Planning, and With the Title III Water Resources Planning Act Planning.

Citation: Multiple federal statues and regulations

Basis: Approved by Association Board

Analysis: Several federal statutes and programs address water resources management either from the quality or quantity perspectives. To date, many specific planning activities associated with these programs have been operating in a relatively independent manner without the interaction and coordination necessary to effectively address water as a resource. Thus, there needs to be a means for considering all aspects of water management in the broad context and mechanisms for the resolution of conflicts between programs during the planning process.

Benefit: Achieve wastewater treatment plants which reflect results of integrated resource management.

(Permits and Enforcement)

8. Simplify the Requirements for Issuance of Public Notices and Preparation of Fact Sheets.

Citation: 40 CFR Part 124

Basis: Approved by Association Board

Analysis: Instead of public noticing all proposed permits, monthly listing of all applications received and permits issued, would be sent to all persons on mailing lists and no fact sheets would be prepared. It would remain optional to send out notices and fact sheets on more complex cases. Section 402(b) of the Clean Water Act only requires notice to various persons of receipt of permit applications so this proposal is consistent with the Act.

The regulations, however, require paperwork in the form of public notices of tentative determinations and the preparation of fact sheets.

Benefit: Reduced resource requirements and indirect overhead for public notice effort.

9. Do not Public Notice Minor (Insignificant) Permit Modifications.

Citation: 40 CFR Part 124

Basis: Approved by membership vote

Analysis: The following permit changes do not involve changes in numerical limits on discharges and as such are not significant enough to warrant resources for public noticing:

a. Changes in permittee name or ownership.

b. Changes in monitoring and reporting.

c. Permit termination (documented).

d. Interim compliance schedule event dates.

e. Corrections.

Benefit: Reduction of resources necessary to process permit changes, and more timely modification of permits often eliminating procedural non-compliance.

10. Streamline Permit Format and Contents (Reduce Length).

Citation: 40 CFR 124.42, 43, 44, 45

Basis: Approved by Association Board

Analysis: NPDES permits have become unnecessarily long and complex. This has, undoubtedly, reducted their utility in terms of being understandable and workable for some permittees

(particularly minor dischargers). Excessive "boiler plate" type of information is included in discharge permits. In some regions steps have been taken to make these permits more reasonable to cope with. However, there has been no uniform effort to streamline in this area.

Benefit: Streamlining would result in more workable permits which would reduce the costs to both the issuing agency and the permittee while still accomplishing the goals of the Clean Water Act.

11. Streamline Noncompliance Notice (NONs) Requirements to Provide for "Generic" NONs to Cover Continuing Instances of Noncompliance

Citation: 40 CFR Parts 124 and 125

Basis: Approved by Association Board

Analysis: Requiring the discharger to submit a notification of instances of noncompliance immediately after learning of the violation, in some instances, is nonproductive and a waste of resources. Most of the time the value of such notices is in the information they contain which obviates the need for follow-up after the violation is detected on a discharge monitoring report. When the violation is of such a nature that there is a hazard to life or health or there is a potential threat to the stream biota, then the notice allows for implementation of emergency response procedures. These benefits occur if: 1) notifications of hazardous spills are made immediately; 2) notifications of

non-hazardous violations are complete and informative; and 3) the reason for non-hazardous violations has been determined. Item 1 cannot be accomplished through the mail. Items 2 and 3 are normally prevented when the notice is due within 5 days of detecting the violation.

Currently many of the major dischargers comply with the NON requirements of their permit. Some comply too well and swamp agencies with paper (see section on ASIWPCA questionnaire). Very few of the NONs received are of the hazardous type. Many, while they are submitted on a timely basis, do not provide enough information because they were submitted before all the facts were known and before the permittee had returned to compliance. If a subsequent follow-up letter isn't submitted by the permittee, then the Agency generally has to initiate a series of phone calls or send a follow-up letter.

To obtain the maximum benefit, the NON requirements should be changed to:

a. Require immediate notification (by telephone) of instances of noncompliance which potentially are a hazard to life or health, may seriously impact the aquatic biota, or meet a specific excursion limit established in the permit.

b. Other, less serious, instances of noncompliance are to be reported and explained at the time the discharge monitoring report is submitted.

Benefit: Reduced mailing cost both for the discharger and the Agency, reduced manpower requirements for the Agency due to not having to process all NONs when they come into search for that one which is hazardous in nature, and preventing a series of procedural violations by handling routine, minor violations in groups and not within a time period for each violation. Based upon data gathered via the ASIWPCA questionnaire it is estimated that over $240,000 per year of savings could accrue from this recommendation.

12. Develop a More Realistic System for Compliance Accounting.

Citation: The changes are primarily of internal USEPA policy based upon their interpretation of how they are to accomplish the mission.

Basis: Approved by Association Board

Analysis: The Quarterly Noncompliance Report (QNR) and one section of the Formal Program Reporting System (FPRS) report technically report on the same matter - the compliance status of major dischargers. Realistically only the QNR reflects the compliance status during the particular quarter in question. At the time the FPRS numbers are generated, the Agency at best only has discharge monitoring reports for 2 of the 3 months the report is supposed to cover. The FPRS numbers are merely summary data which are much less informative than a statistical summary such as the QNR. The QNR could serve as the "barometer" of the state's activity and file audits as the verification procedure.

One key basis used by USEPA to determine the adequacy of a state's NPDES program is the compliance rate of the major dischargers. Currently the basis of compliance is the NPDES permit which reflects the more stringent of state or federal standards. If a state has a lesser compliance rate, it, by definition, is not as satisfactory a program as the programs in other states. One factor that is not taken into consideration, however, is the difference between the standards which the dischargers in the various states must meet. The standard of compliance to be equitable should account for the level of effluent being required. In addition, under the federal Enforcement Management System the USEPA has a very narrow definition of compliance/noncompliance for specific dischargers. It would be more realistic and workable to institute a third category of "contingent or substantial" compliance to cover the grey area of chronic violators, particularly with respect to procedural requirements. Another mechanism would be to develop a compliance "index" based upon a statistical distribution of excursions from effluent limitations.

Benefit: Eliminate duplication of efforts and accounting for insignificant violations, and eliminate the resource requirements which are needed to prepare unnecessary reports.

13. Provide More Effective System for Establishing Priorities for Discharger Permitting and Compliance Purposes.

Citation: 40 CFR Part 125 and related program guidance

Basis: Approved by Association Board

Analysis: Under the existing federal program, dischargers are divided into "majors" and "minors" for permitting and compliance purposes. This initial categorization then defines the relative priority to be placed on dischargers regardless of actual results achieved or problems encountered. Federal regulations also require quarterly noncompliance reporting for permit schedule events. In some regions, this requirement has been administratively extended to include tracking and reporting of effluent violations. Under this approach, there is no mechanism for sorting out the truly recalcitrant or problem dischargers from the entire pool of regulated discharges and prioritizing same for concentrated action during the next budget period. Similarly, there is no flexibility to take a geographic orientation and focus compliance resources on key stream segments or watershed areas. In the alternative, it would be more effective for states to establish a compliance priority rating system that would be designed to surface problem dischargers and related water quality concerns and focus compliance resources thereon on an annual basis.

Benefit: Existing compliance resources could be utilized more effectively and efficiently

(Construction Grants)

14. Eliminate Mandatory Consideration of the Land Treatment Alternative in Facility Planning.

Citation: 40 CFR 35.917-1(d)(5)(iii), Administrator's memorandum of October 3, 1977, and PRM 79-3

Basis: Approved by Association Board

Analysis: An initial screening process should be provided to determine if land application treatment can be considered as an implementable alternative. Because of the soils topography and climate in some portions of the country, land application is not and never has been shown to be a very viable alternative. In areas where climatic conditions do not vary significantly over large areas, redundent land application treatment analyses occur for each project after the first analysis. Thus, it appears unnecessary to require rigorous evaluation of such treatment for every grant project.

Benefits: In some situations preparation of a thorough land application treatment evaluation by the consulting engineer and multiple reviews and revisions have proven to be a wasteful and unproductive activity. Consequently, planning costs would be saved along with time lost in the planning process.

15. Revise Operations and Maintenance Manual Aspects of the Grants Program.

Citation: 40 CFR 35.935-12 and associated guidance

Basis: Approved by Association Board

Analysis: Operations and maintenance manuals required for POTW's built with construction grant funds are not being effectively used by plant operating personnel, if they are used at all. One of the reasons for this undesirable result is that many of the manuals completed to date do not specifically address necessary operational procedures at the plant in terms understandable by the operator. Some manuals have also been found to be highly inaccurate and have limited relation to the plant for which they were to have been prepared. When inaccuracies are readily apparent to the operator, the manual immediately looses its credibility as an effective operating guide.

While the basic concept of O & M manuals is sound, there is a distinct need to rethink the preparation and implementation process from basic theoretical operation and maintenance concepts through to a practical and usable, post-construction product. The O & M manual program must recognize that wastewater treatment facilities are subject to ongoing dynamic changes both during and after construction and therefore may not conform to pre-construction O & M concepts. Particular attention should be given to:

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a. A new format with easier-to-understand language in order to produce a more usable manual.

b. Appropriate overall manual content meaningful for the plant in question.

c. Standardization of manual chapters and/or format where possible.

d. Methods of reducing manual preparation cost to a more reasonable level.

e. Steps necessary to make manuals more acceptable and utilized by facility personnel.

f. Consideration of a condensed "pocket reference book" based upon the full manual.

g. Manuals that can be easily up-graded, up-dated, or modified to meet changing needs and conditions.

Benefit: Costs for O & M manuals could be reduced and a more usable manual would result by standardization of chapters or formats wherever possible, use of language understandable by facility personnel, and the reduction or removal of unnecessary materials. Use of the manuals by operating personnel should result in improved facility operation and could negate the need for further modification or changes in facilities recently built under the federal/state grants program.

16. Architectural/Engineering (A/E) Contract Review and Approval for Costs Less Than $100,000 to be Optional.

Citation: 40 CFR 35.937-6(a) and (c)

Analysis: The costs and price considerations of all A/E contracts are reviewed in accordance with 40 CFR 35.937-6. This requires a detailed local review as well as a detailed state and federal review. For A/E contracts between $10,000 and $100,000, the costs of the review process by state and federal agencies could be deleted and still get careful scrutiny by the grantee. The incorporation of the review and approval of state and federal agencies into the A/E contracts approval process is time consuming for both the consultant and the reviewer with little or no apparent benefits to the grantee or the granting Agency.

Benefit: Reduced costs for grants management at the state and federal levels. Data gathered from the ASIWPCA questionnaire indicates that over $500,000 could be saved via this recommendation.

17. USEPA Should Interpret "Substantial Delegation" More Liberally as a Precondition to be Achieved by States Prior to Eligibility for 205(g) Funding.

Citation: C.W.A. Section 205(g)(2); 40 CFR 35.1000 and USEPA policy guidance

Basis: Approved by Association Board

Analysis: States that have had limited construction grant involvement and are operating under tight fiscal constraints are essentially denied participation in the delegated construction grant management assistance program. With access to 205(g) funding, they could have resources and an

opportunity to phase into the program as they build management capability and demonstrate performance in program administration.

Benefit: Increased state participation with USEPA in administration of the construction grant program.

18. USEPA Should Not Allow the Corps of Engineers to Utilize Any 205(g) Funds Available to Delegated States.

Citation: None

Basis: Approved by membership vote

Analysis: Corps of Engineers involvement in the construction grants program administered by USEPA and the states was advertised and justified on the basis of 800 man years of expert construction inspection talent available to assist in the program. Experience has shown that the Corps involvement has not been particularly constructive, that the Corps, in fact, hired people to implement the program, and that the overall program impact has not met expectations of the states. The states want to be assured they are not obligated to maintain the Corps involvement in the process beyond the term of the present agreement unless the continued involvement is by way of an agreement between the delegated state and the Corps. USEPA should not extend the agreement to utilize 205(g) funding to states to support the activity in the absence of state agreement to do so.

Benefit: Prevent 205(g) funds from being diverted from their intended purposes; that is, carrying out the construction grants program at the state level.

19. Eliminate the Restrictive Requirement That After June 30, 1979 No Step 3 Grants Can Be Made Until the Industrial Cost Recovery and User Charge System Is Adopted and Approved.

Citation: C.W.A. Section 204(b); 40 CFR 35.915(c)

Basis: Approved by Association Board

Analysis: Congress has required USEPA to study the efficiency of and the need for ICR, and to provide information to assist Congress in addressing the future course of this matter. In the interim, a "moratorium" period is in effect suspending ICR payments until June 30, 1979. Given the uncertain status of the whole ICR program, it would appear prudent to remove the regulatory requirement that after June 30, 1979 no Step 3 grants can be made unless the ICR/UCS is adopted and approved.

Benefit: Delay in award of construction grants will be minimized.

20. USEPA Should Streamline NEPA Requirements to Minimize Construction Grant Delays.

Citation: Various regulations and policy guidance.

Basis: Approved by membership vote

Analysis: Specifically, (1) the requirements applicable to small projects should be simplified to provide an acceptable short form environmental assessment and (2) for larger projects (a) determining as early as possible in the planning process (at the Plan of Study Phase where possible) whether or not a Federal EIS will be required; (b) preparing EIS's in parallel with the facilities

planning process except in those cases when the need for an EIS is not identified until the planning process is well along or completed; (c) preparing issue papers within 60 days of the decision to prepare an EIS: (d) preparing in cooperation with the state a schedule for the completion of the EIS (This schedule should be prepared in recognition of the NPDES time schedule and, except where absolutely necessary, the preparation of the EIS should not delay the facilities planning process); and (e) carefully managing the preparation of the EIS so that it addresses the specific environmental issues of concern (not facilities planning issues) and it is completed in accordance with the schedule.

Benefit: Savings in project costs due to expedited processing.

21. EPA Should be Allowed to Continue to Make Construction Grants Based on the Prior Year's Approved Project Priority List When (1) Prior Year Funds Remain Available for Obligation and (2) for at Least 90 Days When the State Submitted the Project Priority List on Schedule and the Delay is Caused by USEPA Review Processes.

Citation: 40 CFR 35.915

Basis: Approved by membership vote

Analysis: None necessary.

Benefit: Savings in project costs due to expedited processing.

22. EPA Should Recognize in Monitoring State Administration of the 205(g) Program that the Facilities Planning Requirements Should not be Applied to a Small Project in the Same Way They are Applied to a Project of Significant Size and Complexity.

Citation: 40 CFR 35 Subpart E

Basis: Approved by membership vote

Analysis: Because of project cost and lack of institutional capability, practically speaking, the same stringency or application of review standards cannot be applied to small community projects as those applied to the larger, more complex projects. Flexibility must be judiciously used to insure appropriateness and qualifications of the proposed projects to meet the substantive requirements. Often compromises are made regarding the extent or depth of detail provided. This practical "fact of life" must be realized by USEPA in performing their overview of the adequacy of a delegated program under 205(g).

Benefit: Savings in project costs due to expedited processing.

23. EPA Should Publish a Monthly or Quarterly Newsletter That Identifies And Describes Innovative and Alternative Projects Funded Over the Previous Month or Quarter.

Citation: 40 CFR 35.935-20

Basis: Approved by membership vote

Analysis: The concept of encouraging alternative/innovative technologies in the construction grants program is new and

presents many administrative uncertainties. The definitions are not precise or clear and are among the many factors which must be resolved during implementation. The potential for inconsistent decisions abounds. The potential to fund systems which do not possess necessary or even desirable operating reliabilities or costs also exists. States would benefit from an agressive technology transfer initiative by USEPA in this complex new program area.

Benefit: Potential savings from better application and control of A/I technologies.

(Program Management)

24. Simplify Procurement Requirements Applicable to State Agency Grantees Where State Requirements are Followed.

Citation: 40 CFR Part 30

Basis: Approved by membership vote

Analysis: State agencies are "grantees" under the definition in 40 CFR 30.135-14 because of execution of grant agreements (40 CFR 30.135-11) as a procedure for program financial assistance in the implementation of public water supply, air, water, solid waste, 208, pesticide and other programs. The various programs establish, by law and/or regulations matching and/or maintenance of effort requirements for eligibility for financial support.

Compliance with such requirments requires determination of project costs (40 CFR 30.135-18) which include costs both allowable and non-allowable used in computing the fiscal USEPA grant amount. 40 CFR 30.700(a) deems that all project expenditures by a grantee include a Federal share - therefore, the Federal procurement regulations of 40 CFR 33 become minimum requirements for all sub-agreements entered into by the grantee. In addition, state agencies must comply with the state procurement requirements. The hybrid procurement system which results combines the most stringent features of either the state or federal requirements.

40 CFR 33.100(a) provides that states may use their own procurement systems (1) to the extent that they do not conflict with minimum Federal requirements of 40 CFR 33 and (2) provided that the Administrator has approved the grantee system pursuant to 40 CFR 33.215.

The regulations should be revised to permit state organizations to expend budgeted state resources pursuant to state procurement requirements and retain allowability as a project expenditure under the grant. The present systems do not allow timely or rapid procurement, especially if professional or technical services, in support of federally-approved programs and after such action, are needed to maintain approved program time

schedules. Also compliance with 40 CFR 33 necessitates such contractor compliance with Federal laws and executive orders, many of which are not required by state procurement requirements. An option would be to allow an exception to 40 CFR 33 requirements where the Federal share of the project cost is less than 50% of the total project cost. This would provide some limited relief in special situations.

Benefit: Resource savings stemming from a streamlined procurement process.

25. USEPA Should Simplify and Reduce the Number/Magnitude of Forms and Reports Required for Program Administration, Specifically 7500-5 and 3560-3 Forms.

Citation: USEPA policy

Basis: Approved by combination of membership and Association Board vote

Analysis: The quantity of repetitive information necessary to document plant adequacy and continuing performance level is far in excess of that required to ascertain compliance or to communicate compliance status. The present forms and system are designed and developed to provide oversight information to USEPA which one would expect from an unreliable contractor - not a partner capable of equally valid professional judgements. Similar concerns apply to the compliance inspection forms.

Benefit: More efficient use of already limited field compliance/inspection staff.

26. The USEPA Regional Administrators Should be Delegated Authority to Approve Deviations to Construction Grant and Other Regulations Under Prescribed Conditions and Constraints.

Citation: None

Basis: Approved by membership vote

Analysis: Oftentimes the states are faced with unique situations or circumstances that are not readily addressed in existing regulations. Without some flexibility in applying the regulations, decisions may have to be force-fit in a nonproductive manner. The end result can even be counter to the overall intent of the program area concerned.

Benefit: Greater flexibility in using properly justified deviations could enhance the effectiveness of state decision-making and program management.

## V. CONSTRUCTION GRANTS PROGRAM: QUALITY PROGRAM INITIATIVE

### Basic Strategy

The basic strategy for doing the job better for less involves:

(1) maximum practicable delegation to the States;

(2) conscientious effort on the part of both EPA and the States to fulfill their respective responsibilities under delegation; (3) a full Federal-State partnership approach to ongoing management of the national program; (4) the focusing of grants administrative efforts on achievement of the basic goals of the Clean Water Act; and (5) the minimizing of program administration costs and paperwork.

### Recommended EPA Actions

1. Delegation to States

   A. Complete delegation agreements with qualified and interested States by June 30th of 1979, or as soon as possible thereafter.

   B. Help provide the States with a reliable, predictable and adequate source of funding under 205(g) by:

      (1) Actively supporting legislation that would tie the maximum amount of funding available to the States to the authorizations contained in the Act rather than appropriations.

      (2) Encourage Congress to provide funding continuity by making multi-year, construction grants appropriations or alternatively single-year appropriations a year earlier than is now done.

(3) Do not encourage the use of 205(g) funds for non-grant related activities until funding continuity is assured and it is certain, based on a 5-year projection, that excess funds will be available for other purposes.

(4) Do not allow the Corps of Engineers to utilize for construction grants-related activities any of the 205(g) funds available to delegated States.

(5) Analyze the impacts of proposed new regulations and/or policies on State manpower needs prior to enactment, and minimize the impact of new regulations that would significantly increase the manpower necessary to administer the program.

2. <u>EPA Responsibilities Under a Delegated Program</u>

A. Upon request, provide training to States to assist them in assuming delegated activities.

B. Monitor the performance of the States under delegation as follows:

(1) Make after-the-fact audits of State performance.

(2) Hold periodic meetings with the States to review the results of performance audits, GICS management reports, or other pertinent issues.

C. Perform non-delegated functions in a timely manner, including:

(1) Sign grant agreements within 5 working days of receipt of State certification.

(2) Review and approve NEPA documents (appraisal and Negative Declaration) within time limits established in cooperation with individual delegated States, unless documents are found to be deficient and the States are so notified.

(3) Review the States Priority List within 30 days. EPA should adopt a policy that unless the State is notified of specific deficiencies within 30 days, the list is considered reviewed and grant agreements can be made pursuant to the list.

(4) Preparation of Federal Environmental Impact Statement:

(a) determine as early as possible in the planning process (at the Plan of Study Phase where possible) whether or not a Federal EIS will be required.

(b) prepare EIS's in parallel with the facilities planning process except in those cases when the need for an EIS is not identified until the planning process is well along or completed.

(c) prepare issue papers within 60 days of the decision to prepare an EIS.

(d) prepare in cooperation with the State a schedule for completion of the EIS. This schedule should be prepared so as to be consistent with the NPDES compliance schedule and, except where absolutely necessary, the preparation of the EIS should not delay the facilities planning process or the compliance dates contained in the permit.

(e) carefully manage the preparation of the EIS so that it addresses the specific environmental issues of concern (not facilities planning issues) and it is completed in accordance with the established time schedule.

(5) It should be noted that the States support the new CEQ regulations relative to preparation of Environmental Impact statements. CEQ should issue guidance to the States with sufficient lead time so as to not disrupt or delay State administrative activities. New requirements should not be applied retroactively.

3. Overall Program Management

Working cooperatively with the States, EPA should develop an effective system for managing the overall Construction Grant program. This system should recognize the following:

A. The system currently used to manage the grant program needs to be updated to account for a more decentralized approach where the States have the major responsibility for day-to-day program administration.

B. EPA and the States must develop a workable partnership in this program and the States should be given an active role in policy development and overall program management. Consideration should be given to a joint EPA/State Committee that would continually review various aspects of the program and serve in an advisory capacity to the EPA Administrator.

C. EPA's efforts could be beneficially redirected to provide expert technical assistance to the States and grantees where requested.

4. Program Focus

EPA should reemphasize to States as well as EPA staff that the prime purpose of the Construction Grant program is to facilitate compliance with the goals of the Act. The primary task of those administering the grants program is to ensure that appropriate goals of the Act are realized, namely:

A. Grant projects provide secondary treatment or compliance with approved water quality or effluent standards by the statutory 1983 deadline, or, if this is impossible, as soon thereafter as possible.

B. All reasonable alternatives have been evaluated and the proposed project is the most cost-effective alternative.

C. Innovative and alternative technology has been fully evaluated and is being utilized if appropriate.

D. The project is consistent with other Federal laws, including NEPA.

E. All other program requirements, including those contained in EPA regulations and guidance are secondary to these objectives. Where strict compliance with regulations or EPA guidance not related to the above objectives would detract from the achievement of these basic objectives, a waiver should be requested.

F. The EPA Regional Administrators should be given the authority to grant deviations as appropriate.

5. Minimizing Program Costs and Paperwork

EPA should participate in a joint effort with the States to simplify grant application forms, checklists and reporting requirements.

6. Program Requirements Memos (PRM's)

A. EPA should reevaluate the concept of PRM's. They currently are used by EPA as if they had the significance and force of regulation, yet they are developed internally by EPA without the thorough public review and comment that regulations receive. It is the view of the States that substantive issues should be handled through the regulation process and that PRM's should deal with non-substantive issues and be viewed strictly as guidance, with compliance discretionary.

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B. Enact a sunset policy for all previously issued PRM's and reissue only those PRM's that are consistent with the concept of PRM's developed pursuant to the reevaluation suggested above.

C. Involve the States in both the reassessment of existing PRM's and the issuance of any new PRM's or other EPA guidance or policies relative to the Construction Grant program.

7. Establishment of Project Priorities/Eligibility

A. EPA should reaffirm to its staff that the States are responsible for the establishment of the relative priorities of projects that are eligible for grants under the law and the regulations.

B. Under the concept of delegation, delegated States will be responsible for determining whether a project or portion thereof is grant eligible.

C. EPA should not reverse the States' decision on eligibility unless the State determination is inconsistent with the law and/or regulations.

D. EPA should cease the use of PRM's to restrict the eligibility of projects beyond what is spelled out in the law or the regulations. In the opinion of the States, the restricting of funding for projects which are fundable under the law is an infringement on the rights of the States, under the Act to establish priorities.

E. EPA's review of priority decisions made by the States should be based on how those decisions impact on the achievement of the 1983 goals of the Act within the State.

If the decisions advance, or do not adversely impact achievement of the 1983 goals, the decisions should stand. If the decision does interfere with the 1983 goals, then EPA ought to hold the State accountable for not managing the priority list consistent with the goals of the Act.

F. EPA should modify its construction grants regulations to allow EPA to continue making grants on the prior year's Priority List when prior year funds are still available rather than wait for the following year's Priority List to be approved.

8. Application of Facilities Planning Requirements to Small Communities

EPA should acknowledge that Facilities Planning Requirements should not be applied to a small project or community in the same detail that they are applied to a project of significant size and complexity. Planning requirements should be simplified for smaller projects.

9. Water Quality Standards

A. Closely coordinate program activities relative to water quality standards within EPA. At the present time, it appears that these programs are going in different directions with the Standards program staff pushing for more stringent treatment levels.

B. In revising the regulations relative to water quality standards, EPA should:

(1) Work closely with the States on the revisions.

(2) Consider impacts of revising standards, including economic and energy impacts as well as impacts on achievement of the 1983 goals of the Act.

10. Miscellaneous Actions by EPA

A. EPA should publish a monthly or quarterly newsletter that identifies and briefly describes innovative and alternative projects funded over the previous month or quarter.

B. Support legislation to implement the recommendations of the Coopers and Lybrand study to eliminate Industrial Cost Recovery (ICR).

C. Work closely with the States in structuring the framework and procedures for any necessary updating of the 1980 Needs Survey.

D. Reinstitute the special waiver of the grant regulations which allowed, under certain circumstances, design to proceed to the 30 percent completion point prior to facilities plan approval. This should remain in effect until at least July 1, 1981 to provide municipalities the greatest possible opportunity for complying with the July 1, 1983 deadline contained in the Act.

E. Let delegated States determine the role of the Corps of Engineers in administering the grant program within their respective States.

F. Simplify and make more flexible the proposed public participation regulations.

G. Implement the new CEQ regulations on the preparation of Federal Environmental Impact Statements which encourage joint review and simplification of processes.

Recommended State Actions

1. Delegation

A. Aggressively seek delegation. Completion of a delegation agreement can be expedited by starting with an agreement that has already been developed by another State. A list of such agreements, together with a list of those States which have made detailed projections of manpower necessary to administer the program is available through ASIWPCA's Washington, D.C. Office.

B. Given the unreliable nature of 205(g) funding available to the States (because of its tie to appropriations which can vary considerably from the authorization in the Act),

(1) Actively support legislation that would tie 205(g) funding to the authorization rather than the appropriation and encourage Congress to establish continuity of funding and make multi-year appropriations (or alternatively single-year appropriations a year in advance).

(2) Carefully estimate the amount of 205(g) funds needed over a 5-year period and estimate the funds available based on assumed and conservative estimates of the annual appropriations, and,

(a) Assume delegation only to the extent that the availability of sufficient funds can be reasonably assured.

(b) Utilize 205(g) funds only for grants-related activities unless the 5-year analysis shows that excess funds are available.

(c) Annually set aside the full 2% available from 205(g) even though it is not needed (to provide funds to the States in the event of a lower than anticipated appropriation or a delay in an appropriation).

2. State Responsibilities Under a Delegated Program

A. Support the fact that EPA must monitor the States' performance and needs the States' cooperation and periodic management reports to do so.

B. Take the initiative in keeping EPA up to date on project status and problem projects.

C. Recognize that in assuming EPA's role in administering the program, the States must be responsive to EPA Headquarters' information needs and requests.

D. Efficiently and effectively administer the program in accordance with the goals of the Act, the delegation agreements and all appropriate laws and regulations.

E. Encourage a joint partnership approach in the overall management of the program and work jointly with EPA in the development of program guidance and in the resolution of program-wide problems.

3. Minimizing Manpower Requirements

Where a State determines there is a need to reduce manpower requirements for any reason (such as lack of sufficient 205(g) funds), the following measures should be considered:

A. Acceptance of a certification by selected grantees that certain, specified program requirements have been satisfied in accordance with Federal regulations. This concept, if utilized, should be restricted to those requirements where

the "consequence of error" will not adversely impact water quality or cost effectiveness. An acceptable example would be accepting a certification from a grantee that a user charge system had been implemented in accordance with Federal regulations.

B. Use of consultants (paid out of 201 funds) to educate and train smaller grantees on the grants process and the various program requirements as opposed to having staff perform this function.

C. The restructuring of the review procedures to reduce the requirements for professional engineers for review of non-technical and administrative work. This technique would also be beneficial where a State is having difficulty hiring qualified engineers.

D. Consider IPA assignments from EPA, or direct assignment of EPA staff members to State offices.

4. Separate State Grant Programs

States ought to start planning now, collectively and individually, for the eventual cessation of the Federal Grant Program. Among the things States should consider are the possibility of a State grant program, similar to those already existing in some States, and the role of the State in review of local planning and design efforts in the absence of a Federal Grant Program.

## NATIONAL SURVEY AND RESULTS

### Introduction

The ASIWPCA membership feels very strongly that the Streamline Initiative should be supported by quantitative information whenever possible. Thus, as part of this project, a survey questionnaire (copy attached) was distributed to the membership on February 28, 1979. Forty questionnaires were returned from mid-March through April 10, 1979, and, thus, the data collected and reported herein is based upon the current status of state programs. This 80% response rate (40 out of 50 states) is indicative of the interest in and support provided for the Streamline Initiative.

The ASIWPCA questionnaire was designed to gather data on three major program areas: construction grants, pretreatment, and NPDES. Within these broad areas, specific questions were utilized to obtain quantifiable information in support of selected streamline initiatives. Given the time constraints involved, it was not feasible to generate data on each and every option (120 in initial voting pool) proposed for adoption by the membership. However, by using selected examples, it was felt that an adequate demonstration in support of the overall streamline concept could be developed.

### Summary of Results

The following table presents a summary, by region of the states responding to the questionnaire. As is apparent from this summary, an excellent cross-section of areas and programs is reflected in

the data gathered via the ASIWPCA questionnaire. It should be noted that not all states responded to every question and, thus, the number of responses per question varies.

ASIWPCA QUESTIONNAIRE
RESPONSE SUMMARY

| Region | Respondents | Number Used In Analysis |
|---|---|---|
| I | Maine, New Hampshire, Vermont (New England Interstate)* | 3 |
| II | New Jersey, Puerto Rico, New York | 3 |
| III | Washington, D.C., Pennsylvania, Virginia, West Virginia, Maryland | 5 |
| IV | Alabama, Florida, Georgia, Kentucky, Tennessee, South Carolina | 6 |
| V | Illinois, Indiana, Minnesota, Ohio, Wisconsin, Michigan | 6 |
| VI | Arkansas, Oklahoma, Texas | 3 |
| VII | Missouri, Iowa | 2 |
| VIII | Colorado, Montana, North Dakota, Utah, Wyoming, South Dakota | 6 |
| IX | Arizona, California, Hawaii, Nevada | 4 |
| X | Washington, Idaho | 2 |
| | | 40 |

*Note - Not included in analysis.

Construction Grants

This section of the questionnaire addressed the federal-state construction grants program. In response to a query about obligation of construction grant funds, 40 states reported as follows:

| | | | |
|---|---|---|---|
| Obligated FFY78 funds by January 1, 1979 | Yes | 6 | (15%) |
| | No | 34 | (85%) |
| Obligated FFY78 funds by September 30, 1979 | Yes | 26 | (65%) |
| | No | 14 | (35%) |

Estimated amount of FFY78 funds unobligated by September 30, 1979.

$261.2 million

Expect to obligate FFY79 funds by:

| | | | |
|---|---|---|---|
| September 30, 1979 | Yes | 6 | (15%) |
| | No | 34 | (85%) |
| September 30, 1980 | Yes | 37 | (92%) |
| | No/Not Sure | 3 | (8%) |

Upon further analysis, it certainly appears that these estimations represent an optimistic, best case outlook. Viewed in isolation, this information might appear unrealistic to some readers. However, the results of another question provide some basis for understanding this data on obligation of funds. The program management activities conducted by the states are critical factors in achieving effective and timely obligation of construction funds. Along these lines, 38 states reported that they expect to receive delegation, under 205(g), of the federal construction grants management activity as follows:

| | | |
|---|---|---|
| Already delegated | 10 | (26%) |
| By September 30, 1979 | 21 | (55%) |
| By September 30, 1980 | 1 | (3%) |
| Later | 3 | (8%) |
| Never | 3 | (8%) |

The fact that 31 states expect (plan) to receive delegation of this program during federal fiscal year 1979 is indicative of the support being generated by the states for the effective management of the nation's construction grants program. This expression of commitment by the states is surely a key factor in their perception of the future rates of obligation of funds. If 31 states do receive this program delegation by October, 1979 - even though time phased into later periods - USEPA is to be commended for the significant progress in delegating programs in a 13 month time frame.

Turning to specific grants projects, 23 states reported a total of 564 AWT plants (assume a definition of AWT as treatment more stringent than 10 mg/l $BOD_5$ or 10 mg/l suspended solids, or nitrogen removal in excess of 50% or phosphorus removal for discharges not tributary to impounded waters) that are expected to be funded in the future. Of this total number, 449 treatment plants are scheduled to be funded from currently authorized funds (FFY80, 81, and 82 at full level). At the mid-winter meeting (February, 1979) of ASIWPCA, USEPA presented data indicating that 1,073 AWT projects were expected to be constructed. As of this writing, we do not have a complete explanation for this apparent discrepancy in estimates.

Certainly some of the difference is attributable to the fact that under our survey data was not received from 10 of the states. The reasons for construction of AWT plants was reported as follows:

| | |
|---|---|
| To meet state effluent standards - | 6 |
| To meet federally approved state water quality standards - | 27 |
| Other - | 1 |

(Note - some states gave multiple reasons.)

Of the states expecting to build AWT plants, 11 reported they anticipate problems (project justification) with securing USEPA funding while 12 reported they do not anticipate such problems.

The results of several other grants questions are presented later in this section.

Pretreatment

This section of the questionnaire addressed the new federal pretreatment program (40 CFR 403). This program has been a major concern for members of ASIWPCA. The basic focus of the questions in this section was to gather information about the scope and workability of the new federal program. In addition, there were several questions which were directed at the current capability of the states and local governments to implement this program given resource and time constraints.

As might be expected, the states' estimates of the total number of primary industries subject to pretreatment controls was highly variable; specifically, numbers ranged from 2 to 36,000 per state. Since 15 (38%) states reported that they did not know the number of primary industries potentially involved in pretreatment, it was not possible to develop a meaningful, nationwide estimate of the total number of industries. However, it is significant to note that 72% (26 out of 36) of the states reported that they intend to pursue a modified pretreatment program as compared to 40 CFR 403. Phrased another way, only 28% (10 out of 36) of the states felt that it is feasible to implement the pretreatment program pursuant to the federal regulations. The most prevalent explanation for this determination was a shortage of resources needed for this new effort. States (20) that have determined resource needs for pretreatment showed, on the average, only 17% readily available resources as compared to required resources.

To keep these findings in perspective, it should be recognized that the vast majority of states still intend on applying some efforts in this area. Thus, it is clear that the states support additional efforts for pretreatment, but cannot implement the program proposed by USEPA.

With regard to capability for pretreatment programs, 58% (22 out of 38) of the states report having the necessary legal authority to implement the pretreatment program. As far as laboratory capability is concerned, just 44% (16 out of 36) of the states reported being able to analyze samples for all priority pollutants. Further, only

about 10% of the publicly owned treatment works over 5.0 mgd have this capability at present. This data indicates a significant expenditure appears necessary just to provide laboratory capability to do the basic data analysis which could be required for pretreatment.

NPDES

This section of the questionnaire addressed the NPDES program as operated to date. From a streamlining perspective, this program has been of considerable concern to the membership of ASIWPCA. The states (39) report a total of 5,808 "major" and 36,090 "minor" discharge permits have been issued. Of this total number of 41,898 permits, 6,689 cover discharges from simple lagoon treatment systems, 4,892 cover discharges of non-contact cooling water less than 1.0 mgd and 9,702 cover discharges from mechanfcal treatment works less than 0.1 mgd. Thus, 21,283 or about 51% of all NPDES permits issued within the states which responded involve relatively insignificant facilities with respect to point source pollution concerns. Additional analysis of this aspect of the program is presented later in this section.

Many aspects of the NPDES program have the potential for joint and often duplicative effort on the part of the states and USEPA. The states (variable number) reported the following information in this regard:

USEPA requires joint processing of permits for:

| | | | |
|---|---|---|---|
| major dischargers | Yes | 17 | (53%) |
| | No | 15 | (47%) |

minor dischargers Yes 13 (41%)
No 19 (59%)

USEPA conducts inspections of facilities which overlap states efforts:

Yes 20 (59%)
No 14 (41%)

USEPA conducts compliance and enforcement activities which overlap states efforts:

| | | "Major" Dischargers | "Minor" Dischargers |
|---|---|---|---|
| 1. | Review of discharge monitoring reports | Yes 26 (70%)<br>No 11 (30%) | Yes 12 (31%)<br>No 27 (69%) |
| 2. | Compliance schedule reports | Yes 22 (56%)<br>No 17 (44%) | Yes 10 (26%)<br>No 29 (74%) |
| 3. | Notices of non-compliance | Yes 18 (47%)<br>No 20 (53%) | Yes 10 (27%)<br>No 27 (73%) |
| 4. | 309 actions | Yes 18 (45%)<br>No 22 (55%) | Yes 7 (19%)<br>No 30 (81%) |

This data clearly indicates that the NPDES program as it is administered today is <u>not</u> a delegated program. At best, one could refer to this as a joint program based upon a "semi-delegation" to the states.

One item in the NPDES program has become a particularly troublesome matter from a paperwork viewpoint; that is, notices of noncompliance (5 day letters). The states (31) reported that about 28,052 individual notices of noncompliance were received from NPDES permittees in federal fiscal year 1978. This is felt to be a very conservative number based upon follow-up phone contacts with some states that responded. The total could be half again as large or about 40,000. More importantly, of this total number, only about 7% of these notices resulted/required immediate enforcement or other

follow-up response. Thus, it appears that over 26,000 notices were processed for little useful purpose.

Finally, the states (variable number) reported on the general overview function performed by USEPA. The following responses were provided with respect to the impact that the techniques used by USEPA for overview have upon the effectiveness/efficiency of state programs:

| | Positive Impact | No or Negative Impact |
|---|---|---|
| Quarterly noncompliance reports | 6 (24%) | 19 (76%) |
| Periodic file audits | 9 (27%) | 24 (73%) |
| Mid/end of year evaluations | 21 (64%) | 12 (36%) |
| Periodic conference calls | 17 (52%) | 16 (48%) |
| Daily contacts | 21 (62%) | 13 (38%) |
| Periodic information requests/reports | 10 (33%) | 20 (77%) |
| Formal program reporting system | 2 (10%) | 19 (90%) |
| Independent actions by USEPA | 7 (21%) | 27 (79%) |

This data leads one to conclude that the paperwork (various reporting requirements) aspects of USEPA overview are considered to be generally non-productive for state programs. This does not imply that reporting is unnecessary. It more likely reflects a management problem wherein reporting could be handled in a more streamlined and useful manner. On the positive side, daily or periodic communication between USEPA and the states appears to be productive. Evidently, this reflects some meaningful exchange of information which results in benefits for state programs. The states are clearly concerned about independent actions (direct contact with permittees,

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enforcement activities) taken by USEPA. While this type of overview is necessary, this information suggests that care and skill must be exercised by USEPA in order to prevent adverse impacts on states programs.

Selected Examples of Savings

1. Eliminate Architectural/Engineering (A/E) contract review and approval for costs less than $100,000.

   Questionnaire data from 23 states showed a total of 2,186 A/E contracts reviewed and approved in FFY1978. Of this total, 1,596 (73%) contracts were for amounts less than $100,000. The average review time was 3.4 work-days per contract. Thus, the savings resulting from streamlining would be:

   (3.4 x $20,000 x 1,596)/217 = $500,129

   (Note - assume average annual salary plus overhead is $20,000 and average annual work-days of 217.)

2. Expand the scope of the infiltration/inflow (I/I) analysis to include some tasks associated with the sewer system evaluation survey (SSES).

   Questionnaire data from 25 states indicated that 682 I/I analysis were initiated during FFY1978. The average percentage of I/I analysis reviewed in FFY1978 which concluded that I/I was non-excessive was 22 - 28%. The average savings in review time if

all the required field work for I/I-SSES were undertaken at the same time was 8 months. Of the projects for which I/I analyses were initiated during FFY1978, 472 are scheduled to be funded for construction from currently authorized funds (79-82) at an estimated total cost of $1,635,175,000. Thus, the savings resulting from streamlining ranges from:

(.72)(8 mo.)(.01)($1,635.2M) = $94.2M

to

(.78)(8 mo.)(.01)($1,635.2M) = $102.0M

(Note - assume an inflation rate of 1.0% per month of delay.)

3. Utilize general permits for certain classes/categories of minor dischargers.

Questionnaire data indicates that 51% of the issued NPDES permits have the potential for being handled by the general permits approach. Further, implementation of this approach would provide an average savings in program effort of 19.6%. Thus, the savings resulting from streamlining would be:

(.196)(768 work-years)($20,000) = $3.0 M/year

(Note - assume $20,000 average cost per work-year.)

4. Streamline noncompliance notice requirements to provide for "generic" NONs to cover continuing instances of noncompliance (relatively insignificant).

Data gathered from the questionnaire indicates that only about 7% of the notices of noncompliance received in FFY1978 resulted in or required immediate enforcement or other follow-up response. It appears that, at a minimum, 26,000 notices were processed for little useful purpose. If we assume 1 hour per notice for all aspects of processing, 7.5 work hours per day, 217 work-days per year and an average staff cost of $15,000, this effort involves about $240,000 per year for just the states. Given that USEPA duplicates some of this effort and that the total number of notices is probably much higher, the total savings resulting from streamlining this matter is certainly greater than this minimum figure.

5. Implement an effective, in fact, delegation of the NPDES program similar to that done under 205(g).

Data gathered from the ASIWPCA questionnaire indicates a substantial amount of duplication of effort between USEPA and the states. This overlap occurs in permit issuance, inspection of facilities and in compliance and enforcement activities. Based upon the NPDES states (24) providing information, about 620 work-years of effort are currently applied to NPDES activities at the state level. If we assume that 10% of the states' efforts should be audited after-the-fact (similar to approach used under 205(g) delegation), then USEPA should only need about 62 work-years of effort to monitor the delegated states reporting herein (an average of 2.6 work-years per state). It was beyond the scope of this effort to review the level of USEPA resources applied in this area. However, we feel such an analysis coupled with consideration of the extent of duplicative activity would show significant resource savings.

Conclusion

A few final comments are necessary to bring this section regarding the questionnaire survey into perspective. This project was designed to bring together the membership of ASIWPCA in a cooperative effort to develop very basic information about selected program concerns and streamline proposals. While this was not a highly sophisticated data gathering and analysis exercise, ASIWPCA believes it has served to demonstrate the overall validity of our concern with streamlining the nation's water pollution control program. Based upon this initial effort, ASIWPCA believes that the impact of constructive proposals for improving the effectiveness and efficiency of the program can be quantified. Given this type of information, more accurate and meaningful program management decisions can be made. Most importantly, ASIWPCA believes this effort shows considerable promise of future benefits to be gained from continued emphasis on program management and accountability.

ASIWPCA
QUESTIONNAIRE

_____ Date

_____ Name

_____ Organization

I. Grants

A. Assuming full appropriation of currently authorized construction grant funds in FFY80, 81 and 82, how many currently unfunded projects are expected to be funded? _____ (1)

Of this number, how many projects have a total estimated cost of less than:

$5M _____ (2)
$4M _____ (3)
$3M _____ (4)
$2M _____ (5)

B. Have you obligated FFY78 funds by January 1, 1979?

____ Yes ____ No (6)

C. Will you obligate FFY78 funds by September 30, 1979?

____ Yes ____ No ____ Not Sure (7)

D. If No or Not Sure, estimate the amount of FFY78 funds unobligated by September 30, 1979?

$_____ Million (8)

E. Do you expect to obligate FFY79 funds by

| | | | |
|---|---|---|---|
| September 30, 1979? | ____ Yes | ____ No | (9) |
| September 30, 1980? | ____ Yes | ____ No | (10) |

F. Do you expect to receive Construction Grant Management (205(g)) delegation by

| | | | |
|---|---|---|---|
| Already Delegated | ____ Yes | ____ No | (11) |
| September 30, 1979 | ____ Yes | ____ No | (12) |
| September 30, 1980 | ____ Yes | ____ No | (13) |
| Later | ____ Yes | ____ No | (14) |
| Never | ____ Yes | ____ No | (15) |

G. Assuming a definition of AWT as a level of treatment more stringent than 10 mg/l BOD-5, or 10 mg/l suspended solids, or nitrogen removal in excess of 50% or phosphorous removal for discharges not tributary to a lake, reservoir or impoundment:

How many AWT plants are expected to be constructed in your state (not yet funded)? _____ (16)

How many of these plants are scheduled to be funded from current authorized funds (assume full appropriation of FFY80, 81 and 82 authorizations). _____ (17)

Are these AWT plants necessary to meet:

State effluent standards ____ (18)
State water quality standards ____ (19)
Other ____ (20)

Do you expect problems (project justification), other than time delays, with securing USEPA eligibility determinations for funding the scheduled AWT plants?

____ Yes ____ No (21)

H. Estimated number of A/E contracts reviewed and approved in FFY1978 _____ (22)

Number of A/E contracts for amounts less than $100K _____ (23)

Average review time (man/days) required for A/E contracts less than $100K in FFY1978 _____ Days (24)

I. Estimated number of I/I analyses initiated during FFY78 _____ (25)

Estimated percent of I/I analyses reviewed in FFY78 which concluded that I/I was non-excessive _____ (26)

What is the expected savings in project planning time (months) if all the required field work for I/I-SSES were undertaken at the same time? _____ (27)

Of those projects for which I/I analyses were initiated in FFY78, how many are scheduled to be funded for construction from current authorized funds (FFY79-82)? _____ (28)

What is the total estimated construction cost of these facilities? _____ (29)

II. Pretreatment

A. Estimated total number of primary industries (as defined by 40 CFR 403) in your state/ interstate organization:

1. Total number all sizes _____ (30)
2. Extrapolated number based on USEPA's January 15, 1977 estimate of 30,000 nationwide _____ (31)
3. Do not know _____ (32)

B. Is it feasible to implement the pretreatment program as required by 40 CFR 403, or do you foresee establishing a modified program (phasing)?

1. As required by 40 CFR 403 _____ (33)
2. Modified program _____ (34)

If number 2 was checked, briefly explain: _____

C. Do you have the necessary legal authority to implement the pretreatment program?

_____ Yes _____ No _____ Do Not Know (35)

D. Does your state currently have the capability to analyze samples for all priority pollutants?

_____ Yes _____ No (36)
_____ In-House (37)
_____ Another State Agency (38)
_____ University (39)
_____ Contract (40)

Do any of your POTW's over 5 MGD have this capability?

_____ Yes _____ No (41)

If Yes, how many _____ out of a total of _____? (42)

E. Have you estimated the resources needed in your state to implement the pretreatment program as proposed by USEPA?

_____ Yes _____ No (43)

If Yes:

| | FFY 79 | FFY 80 | FFY 81 | FFY 82 | FFY 83 | |
|---|---|---|---|---|---|---|
| (man/ years) | _____ | _____ | _____ | _____ | _____ | (44) |
| ($) | _____ | _____ | _____ | _____ | _____ | (45) |

What level of resources do you expect to have readily available to implement the pretreatment program?

| | FFY 79 | FFY 80 | FFY 81 | FFY 82 | FFY 83 | |
|---|---|---|---|---|---|---|
| (man/ years) | _____ | _____ | _____ | _____ | _____ | (46) |
| ($) | _____ | _____ | _____ | _____ | _____ | (47) |

III. NPDES Permit Program

A. Has NPDES authority been delegated to your state?

_____ Yes _____ No (48)

B. Number of facilities issued NPDES permits

_____ Major (49)

_____ Minor (50)

C. How many NPDES permits cover discharges from:

_____ Lagoons (51)

_____ Non Contact Cooling Water Less Than 1.0 MGD (52)

_____ Mechanical Treatment Works Less than 0.1 MGD (53)

Other Candidates for a General Permit Program

| Number | Description | |
|---|---|---|
| _____ | _____ | (54) |
| _____ | _____ | (55) |
| _____ | _____ | (56) |
| _____ | _____ | (57) |

D. Current effort in support of the NPDES permit program as stated in your FY79 106 program plan

_____ Total Man Years (58)

_____ Total Dollars (59)

E. Estimated reduction (savings) in program effort in support of the NPDES permit program if a general permit program for certain minor discharges were avilable and used

_____ Total Man Years (60)

_____ Total Dollars (61)

F. If permits could be issued for a period of up to 10 years what per cent reduction would be available in your NPDES program effort?

_____% (62)

G. Does USEPA require joint processing of NPDES permits for:

Majors ____ Yes ____ No (63)
Minors ____ Yes ____ No (64)

Does USEPA conduct inspections of facilities which overlap with your efforts?

CSI's ____ Yes ____ No (65)
CEI's ____ Yes ____ No (66)

If Yes, how many? _____ (67)

Does USEPA conduct compliance and enforcement activities which overlap with your efforts?

| | Majors | | Minors | | |
|---|---|---|---|---|---|
| Review of DMRs | ___Yes | ___No | ___Yes | ___No | (68) |
| Compliance schedule reports | ___Yes | ___No | ___Yes | ___No | (69) |
| Notices of Noncompliance | ___Yes | ___No | ___Yes | ___No | (70) |
| 309 Actions | ___Yes | ___No | ___Yes | ___No | (71) |

H. Estimated number of notices of noncompliance (5 day letters) you received from NPDES permittees in FFY78? _____ (72)

Of this total number, what percentage of notices resulted/required immediate enforcement or other follow-up response? _____% (73)

I. How do the following techniques used by USEPA in their overview activities impact the effectiveness/efficiency of your program?

| | Positive Impact | No Impact | Negative Impact | |
|---|---|---|---|---|
| QNCR | _____ | _____ | _____ | (74) |
| Periodic File Audits | _____ | _____ | _____ | (75) |
| Mid/End Yr. Evaluations | _____ | _____ | _____ | (76) |
| Periodic Conf. Calls | _____ | _____ | _____ | (77) |
| Daily Contacts | _____ | _____ | _____ | (78) |
| Periodic Information Requests/Reports | _____ | _____ | _____ | (79) |
| FPRS | _____ | _____ | _____ | (80) |
| Independent Actions (direct contact with permittees, enforcement actions) | _____ | _____ | _____ | (81) |
| Other (specify) | | | | |
| _____ | _____ | _____ | _____ | (82) |
| _____ | _____ | _____ | _____ | (83) |
| _____ | _____ | _____ | _____ | (84) |
| _____ | _____ | _____ | _____ | (85) |

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Good! RE FWPCA Hearings you held

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

STATE WATER RESOURCES CONTROL BOARD

P. O. BOX 100, SACRAMENTO, CALIFORNIA 95801

(916) 445-3993

NOV 27 1979

In Reply Refer to: 505:WRR

Honorable Norman Mineta, Chairman
Subcommittee on Oversight and Review
Committee on Public Works and Transportation
Congress of the United States
House of Representatives
Room 2165, Rayburn House Office Building
Washington, D.C. 20515

RECEIVED

NORMAN Y. MINETA

Dear Mr. Mineta:

CLEAN WATER CONSTRUCTION GRANTS PROGRAM

I regret that I was unable to attend the October 30, 31, and November 1 hearings on the Construction Grants Program. However, I would like to have the following statement entered into the record:

"The State of California received full delegation from the U.S. Environmental Protection Agency (EPA) for the Construction Grants Program in May, 1975. This delegation was accepted by the State Water Resources Control Board in a spirit of cooperation to achieve a common goal - clean water. At that time a one-half of one percent processing fee system was established to administer the delegated program. This fee system soon proved inadequate to fund the program because of insufficient background information to base a fee structure on, timing of fee collection, increasing program size, and new and changing regulations.

The Construction Management Assistance Grant (CMAG) was established by the Clean Water Act of 1977 (Public Law 95-217). This grant was established to finance administration costs of the Clean Water Construction Grant Program. It anticipated the financial need of the states which would accept the responsibility of delegation. In California, the CMAG was looked upon as providing relief from the limitation imposed by the grant processing fee system.

The CMAG appeared to provide adequate funding in keeping with congressional intent since it was tied to allocations; and P.L. 95-217 authorized an adequate program thru federal fiscal year 1982. The appropriation Acts have limited allocations to the point that the CMAG is now insufficient to fund full delegation of the program.

California's only alternative under this situation is to reduce staff and return selected delegation responsibilities back to EPA.

Effective October 1, 1979, California returned the responsibility for construction review of six major agencies to EPA. This work effort impacts 88 construction contracts worth $714 million. California currently plans on returning the construction review responsibility for 16 additional agencies as well as making other program reductions, on January 1, 1980, unless funding relief is received.

The impact of returning delegation responsibility to EPA will be critical to the program. From the grantee's standpoint, the major impact will be in dealing with two governmental agencies, rather than one which is the current case. EPA will face a different problem, that of developing adequate staff with inadequate funds. The SWRCB will face project time delays created by the multi-agency review process. These impacts will hinder attainment of the goals of the 1977 Act.

We feel that delegation is an excellent approach to solving the nation's wastewater problem. We know it works. It saves time, money, duplication of effort, and the frustration of dealing with more than one agency.

California has been a leader in delegation and supportive since its initiation. We are now in a very difficult position since we are one of the few states nationwide which have already obligated all funds allocated for Federal fiscal year 1979. By being in this position, delegation in California is in jeopardy. Even though we may be the only state now in this situation, more states will find themselves joining us next year. Now is the time to act. If we are to clean up our waters, we need more funds, both for projects and staff. Some relief from the 2% maximum limitation on the CMAG is needed by early spring, or further reductions in our program will be needed. We regret having to return any part of our delegation and ask that the Congress consider modifying or lifting the two percent limit on the CMAG.

California requests that Congress consider the following option:

Modify the wording of Section 205(g)(1) of the 1977 Act to read:

> (g)(1) The Administrator is authorized to reserve each fiscal year not to exceed 2 per centum of the ~~allotment~~ Congressional Authorization made to each state under this section on or after October 1, 1977, or $400,000 whichever amount is the

greater. Sums so reserved shall be available for making grants to such State under paragraph (2) of this subsection for the same period as sums are available from such allotment under subsection (d) of this section, and any such grant shall be available for obligation only during such period. Any grant made from sums reserved under this subsection which has not been obligated by the end of the period for which available shall be added to the amount last allotted to such State under this section and shall be immediately available for obligation in the same manner and to the same extent as such last allotment.

The benefits of this two-word change would be to a) provide adequate administrative funding as congress intended while yet maintaining control over the funds allocated to the Clean Water Grants program, b) provides a formula which parallels current law and thus treats all states equitably, c) provides administrative funding of the projects currently under construction regardless of whether new projects are added or not.

Thank you for your consideration."

Sincerely yours,

Carla M. Bard
Chairwoman

cc: Gary Magnuson
State of California Washington Office

William J. Miller, Vice-Chairman
State Water Resources Control Board

L. L. Mitchell, Member
State Water Resources Control Board

ARIZONA DEPARTMENT OF HEALTH SERVICES

*Division of Environmental Health Services*

BRUCE BABBITT, Governor
SUZANNE DANDOY, M.D., M.P.H., Director

November 20, 1979

The Honorable Norman Mineta
The U.S. House of Representatives
Rayburn House Office Building
Room B-375
Washington, D.C. 20515

Attention: Bob Prolman

Dear Mr. Mineta:

It is our understanding that your Subcommittee on Oversight and Review is currently holding hearings to review the status of the Construction Grants Program authorized by the Federal Clean Water Act. The Subcommittee has formulated a number of questions that will be directed to the States' representatives who will provide testimony at the hearings. The State of Arizona, Bureau of Water Quality Control, wishes to provide a response to those questions for your information and consideration.

1. Assessment of those factors which most significantly affect the Construction Grants Program's rate of progress.

   The most significant factor that currently affects Arizona's Construction Grants Program is a shortage of funds. For all practical purposes, we have no money to fund 201 projects at the present time. Our FY 1980 money, when it is received, should amount to about $26 million. Our needs, in order to fund projects from the FY 1980 State Priority List, total $95 million. The progress of our program will slow to a crawl at the current funding level.

   Another factor that impedes effective implementation of the program is the imposition of requirements that have little or no relation to the goals established by the Clean Water Act. Both the Congress and the U.S. Environmental Protection Agency have been responsible for such actions. The impact of these requirements is to increase the cost of projects, thereby decreasing the number that can be funded, and to lengthen inordinately the time needed to complete projects. Some examples of requirements unrelated to the goals of the Act are:

   - evaluation of the recreational potential involved with a project.

   - evaluation of specific types of land treatment even though their use may be entirely inappropriate.

- approval by the EPA Administrator of some advanced waste treatment projects even though they are required to meet State water quality standards adopted at the urging of EPA.

- implementation of public participation regulations that add time for notification, but do little to encourage public involvement.

- implementation of the new NEPA regulations that increase the length of time allowed for review of environmental documents.

2. Description of any Construction Grants Program review and approval functions previously delegated to the State by EPA under memorandum of understanding or other administrative mechanism.

   No such functions had been delegated by administrative mechanism.

3. The amount of Section 106 funds that have been made available to the State since 1972, and the amount of these funds that have been used each year in managing the Construction Grants Program.

| Fiscal Year | 106 Funds | Construction Grants Management Step 1 | Step 2 | Step 3 |
|---|---|---|---|---|
| 1972 | $.183,344 | 0 | 0 | 0 |
| 1973 | 230,432 | 0 | 0 | 0 |
| 1974 | 391,254 | 0 | 0 | 0 |
| 1975 | 631,929 | 0 | 0 | 0 |
| 1976 | 531,741 | 0 | 0 | 0 |
| 1977 | 459,055 | $18,355 | 0 | 0 |
| 1978 | 597,850 | 32,077 | 0 | 0 |
| 1979 | 558,900 | 52,867 | 0 | 0 |

4. A review and progress report on the State's experience in implementing the State Management Assistance Program under Section 205(g) of the Clean Water Act.

   In March, 1979, an agreement was signed by the Arizona Department of Health Services and the U.S. Environmental Protection Agency to delegate management of the Construction Grants Program to the State. Since that time, seven sub-agreements have been ratified that delegate specific management functions to the State. Four more sub-agreements are in various stages of the approval process, and should be in place soon. The schedule adopted by the State and EPA calls for delegation to be completed by July 1, 1980.

   Implementation of the transfer of management responsibility to the State has been relatively smooth. EPA, Region IX, has been responsive to the State's needs, and have detailed personnel to the

The Honorable Norman Mineta
Page Three

Bureau of Water Quality Control to assist during the transition period. The State, in turn, is thoroughly committed to assumption of program management responsibility.

5. Recommendations for streamlining and expediting the program.

The single, most effective action that could be taken to streamline and expedite the program is the elimination of grant requirements that have been imposed by EPA in the form of regulations and Program Requirements Memoranda that have no impact on satisfying the goals of the Act. The shortage of construction grant funds for our State makes it imperative that they be used to solve water quality problems and not be squandered to implement unrelated programmatic demands.

The program could also be streamlined by the realization on the part of EPA that facility planning requirements should not be applied to small community projects in the same manner as larger, more complex projects. In most cases, the number of viable treatment alternatives open to a small community are very limited, and it makes little sense to require study of a larger array of options.

The management of the Construction Grants Program could be much more effective if Congress would provide a two-year appropriation of funds this year, and a single front-year appropriation annually thereafter. It is extremely difficult to manage any grant program without an idea of the funds available for the subsequent year. Along that same line, legislation would be helpful that ties the maximum funding available to states for 205(g) purposes to the authorization contained in the Clean Water Act rather than the unpredictable congressional appropriation.

We appreciate the opportunity to express these views to you. We look forward to improvements in the administration of the Clean Water Act that may result from the Subcommittee's hearings.

Sincerely,

Ronald L. Miller

Ronald L. Miller, Ph.D., Chief
Bureau of Water Quality Control

RLM:RER:rlh

cc: Robbi J. Savage, AWIWPCA

43-935 O—80——64

Department of Natural Resources
ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

December 3, 1979

Congressman Norman Mineta, Chairman
House Subcommittee on Oversight and Review
Rayburn House Office Building, Room B-375
Washington, D.C. 20515

DEC 7 1979

Attention: Mr. Robert S. Prolman

RE: Construction Grants
Program Hearings

Dear Congressman Mineta:

This letter is written in reference to the hearings which were conducted on October 30 through November 1, 1979 by the House Public Works and Transportation Committee's Subcommittee on Oversight and Review. These hearings, which you chaired, concerned the status of the Construction Grants Program. We respectfully submit the following comments to be included in the official record of those hearings.

There are several factors which have a significant effect on the rate of progress in the Construction Grants Program. At present, the most obvious of these is the involvement of EPA, and especially of EPA Headquarters, in the review of projects requiring treatment levels beyond secondary. The Environmental Protection Agency staff involved in these reviews are going beyond the limits of their responsibility by becoming involved in project details rather than water quality issues, resulting in a completely independent project review by EPA Headquarters which often second-guesses the decisions which had previously been made by State and EPA Regional Office project engineers who had been involved with the projects for years. The delays caused by EPA's involvement have disrupted the program greatly. To date, we have submitted 23 justification packages to EPA for projects requiring treatment levels beyond secondary, 12 of which required Headquarters review. We have received approval of one package and comments on a portion of one package from Headquarters. We are still awaiting an initial response on the remaining 10 packages, some of which were submitted to EPA as early as last February. The total capital cost of projects on which we are still awaiting EPA approval is nearly $200 million, and the average time which these packages have been at EPA is greater than six months. At the current rate of inflation in the construction industry of approximately 12% these delays have cost the program in the neighborhood of $12 million in inflation alone.

Throughout the history of P.L. 92-500, EPA has applied regulations to projects retroactively. The review of treatment levels as discussed above is a classic example of this, although in this particular case this retroactive application was required by Congress. In addition, EPA has a history of generating Program Requirements Memoranda (PRMs), which carry the impact of regula-

tions but are not required to undergo a public review and comment period prior to becoming effective. These have also been applied retroactively in many instances. Such retroactive application for regulations and requirements often delays projects, generally accomplishes little or nothing, and adds to the frustration of the grantee, consultants and State agencies who are trying to complete the projects in order to achieve water quality standards.

Prior to the passage of the Clean Water Act in 1977, the Georgia Environmental Protection Division had several review and approval functions of the Construction Grants Program delegated from EPA through specific signed agreements. These included review and approval of plans and specifications, change orders, operation and maintenance manuals, and sewer use ordinances. In order to carry out these and other non-delegated grant functions, EPD utilized Section 106 funds for administration of the Construction Grants Program. Since 1974, the funds have been utilized as follow:

| Fed. Fiscal Year | Section 106 Funds Available (Federal) | Section 106 Funds Used to Manage Construction Grants Program (Federal) | (Matching State Funds) |
|---|---|---|---|
| 1974 | $1,406,327 | $ 66,497 | $ 73,999 |
| 1975 | 1,246,499 | 183,253 | 96,681 |
| 1976 | 1,246,499 | 333,753 | 72,575 |
| 1977 | 1,402,313 | 473,735 | 307,820 |
| 1978 | 1,632,900 | 550,221 | 283,293 |
| 1979 | 1,632,900 | * | * |

* No Section 106 funds were utilized for administration of the Construction Grants Program in FFY 1979. The program was administered wholly through a Section 205(g) grant in the amount of $1,747,620 for FFY 1979 and FFY 1980.

There is no way to accurately delineate the specific amount of Section 106 funds which can be attributed to management of the various steps from FFY 1974 through FFY 1978. We would estimate that, from FFY 1974 through FFY 1976, approximately 80% of our grant-related effort was devoted to Step 1 management, 10% to Step 2, and 10% to Step 3; for FFY 1977 through FFY 1978, approximately 75% to Step 1, 15% to Step 2, and 10% to Step 3. Under our 205(g) grant, we are now required to maintain a comprehensive time management system. This system indicates that, during FFY 1979, approximately 67% of our grant-related effort was devoted to Step 1, 17% to Step 2, and 16% to Step 3. As more projects move from the planning to the design and construction phases, we would expect our emphasis to continue to swing toward management of the Step 2 and Step 3 functions.

The passage of the Clean Water Act of 1977 encouraged the State of Georgia to seek delegation of authority for administration of the Construction Grants Program from EPA. Section 101 of the Act stated that "It is the policy of Congress that the States manage the construction grants program under this Act." We began negotiating with EPA Region IV for these delegations immediately following passage of the Act, and finally reached agreement on the basic terms and conditions with the execution of an "umbrella" agreement on October 27, 1978. Twelve functional agreements were executed on November 27, 1978, one on

April 12, 1979, and five on May 4, 1979, bringing the total number of officially delegated functions to eighteen. Thus, Georgia has received official delegation for administration of the entire Construction Grants Program with the exception of interim and final construction inspections (delegated to the Corps of Engineers) and certain functions which cannot be delegated, including environmental impact statement and civil rights determinations.

Please note the use of the terminology used above in describing the delegations as "official" delegations. Our experience to date has been that these EPA delegations are on paper only. EPA has tended to disregard the delegation agreements since their execution, and continues to duplicate State reviews and second-guess our decisions on many important matters. If anything, the delegation agreements have resulted in State personnel performing many administrative tasks which were previously handled by EPA staff, thereby freeing up the time of the EPA staff to become more involved in technical issues. This has led to a great deal of second-guessing by EPA, resulting in additional delays to the Construction Grants Program. Through its disregard for the terms of the delegation agreement, EPA has actually caused the processing of documents to be slowed down, when the intent of the delegations was to speed up the process. It should be noted that our staff is much larger and has significantly more cumulative experience in managing the Construction Grants Program than does EPA's Ga State Section. We believe EPA should maintain an overview position when the responsibilities are delegated to the States, but this can be accomplished with much less than complete duplication of the review process.

There are several courses of action which are recommended in order to streamline the Construction Grants Program. First, the review of projects involving treatment levels greater than secondary should be delegated from EPA Headquarters to Regions and States which have demonstrated their ability to perform these reviews. Second, in order for this and any other delegation to work, EPA must truly delegate responsibility for administration of the program to States which have demonstrated the ability to handle this responsibility and to abide by those delegations. EPA Regional Office staff members and mid-level management must not be allowed to undermine the intent of Congress by sabotaging the delegation process. Third, efforts should be directed toward requiring advanced notice of the EPA regulations and requirements rather than applying such regulations and requirement retroactively.

We appreciate the opportunity to provide comments for the record of your hearings, and hope that they will be of use to you in formulating procedures to streamline the Construction Grants Program. If we may be of any assistance to you in your efforts, or if you have any questions or require any further information, please do not hesitate to call.

Sincerely,

J. Leonard Ledbetter

J. Leonard Ledbetter
Director

JLL:jcdw

cc: P. Traina-EPA

STATEMENT FOR THE RECORD
of
Subcommittee on Oversight and Reviews
Committee on Public Works and Transportation
U.S. House of Representatives

RECEIVED
NOV 5
CONG. NORMAN Y. MINETA

November 28, 1979

by

Michael P. Mauzy, Director
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois
(217/782-9450)

I thank the Subcommittee for scheduling hearings on October 30 and 31, and November 1, 1979, to receive testimony on the operation of the construction grants management assistance program established by Section 205(g) of the Clean Water Act and related Title II matters. I especially appreciate your action to hold the record open for the submission of additional statements. I submit this information for the record on behalf of the Illinois Environmental Protection Agency (IEPA) and the State of Illinois. Following your review of this information, I will respond to any questions you may have or comment more extensively on this statement.

These hearings are most appropriately timed since the construction grants program is at another critical point in its implementation. Events of the past year have retarded progress as seriously as, or perhaps more so than the Presidential impoundment of funds of an earlier era. At a time when progress should be accelerating to achieve the statutory compliance date of 1983, new requirements have been added to complicate program implementation, to increase cost and to defy rational program management. Additionally, funding levels have been reduced when construction costs are increasing significantly. Improvements of the magnitude anticipated by delegation of expanded management responsibilities to the states have not been realized.

In my view, a program which requires seven to nine years from initiation of planning to completion of construction for the average project is not the program called for by Public Law 92-500. We should not be satisfied with this level of performance. We can and must do better!

I will respond to the specific subjects of your inquiry as they relate to the Illinois program, analyze one of the major factors causing delay in the Illinois program and present recommendations for your consideration.

## Status of the Illinois Program

On August 2, 1978, Illinois became the first state to receive delegation from USEPA for management of the federal construction grants program under Section 205(g) of the 1977 Clean Water Act. We aggressively sought this delegation in anticipation of significantly

enhancing the state program. Specific benefits we anticipated were eliminating duplicative reviews, expediting the review process by 30 to 90 days for Step 1 and 2 projects, and improving the capability of the state to manage and to implement the construction grants program. Prior to this time, the IEPA and the Region V Administrator of the USEPA signed a joint agreement in August, 1976 for certain reviews and inspections of grant projects under Title 2 of PL92-500. This early agreement covered the following activities:

1. The plan and specification review agreement called for IEPA to review all plans and specifications for Step 3 applications certified to USEPA for funding. IEPA was also to determine if the proposed facilities had been designed in accordance with appropriate Federal and State criteria including compliance with the approved facility plan. USEPA prepared and mailed approval correspondence to grantees and maintained responsibility for review/approval of all plans and specifications on projects where the Regional Administrator had determined the need for an environmental impact statement pursuant to the National Environmental Policy Act of 1969. The 205(g) delegation did not significantly impact this activity. It worked well before delegation and has continued to work well since delegation.

2. The operation and maintenance (O&M) manual review agreement called for IEPA to review O&M manuals for all Step 3 applications certified to USEPA for funding for which a Step 3 grant had been made. The review was to determine that O&M manuals had been completed in accordance with appropriate Federal and State criteria. USEPA agreed to accept such IEPA determinations as satisfying the Federal regulatory requirements. O&M manual review was enhanced by the 205(g) delegation in that the IEPA was able to apply more resources to this activity and thereby reduce a large backlog to acceptable levels.

3. The Step 3 change order agreement called for IEPA to review project changes on all Step 3 grants, and to determine if change orders complied with appropriate Federal and State criteria. USEPA prepared and mailed approval correspondence to grantees. The 205(g) delegation has transferred these clerical tasks to the IEPA.

4. The performance evaluation agreement called for IEPA to conduct inspections of completed facilities. IEPA was responsible for determining if such facilities had been constructed in accordance with the approved plans and specifications, including change orders, and if the constructed facilities were being operated and maintained

in accordance with Illinois Pollution Control Board Rules and Regulations and appropriate federal criteria. IEPA was to complete a performance evaluation checklist and submit such documentation as evidence of a completed performance evaluation to USEPA. This process has continued essentially intact through the 205(g) delegation.

Thus, the formal 205(g) delegation in August of 1978 was built upon the earlier agreement and activities conducted thereunder. In addition, since 1974 Illinois has been fortunate to have a parallel state construction grants program. The state grant program followed relevant federal construction grant regulations and policies so that this experience has served to accelerate staff development in activity areas delegated under 205(g). At the time of the original 205(g) delegation, IEPA had a construction grants staff of approximately 48 people. As additional delegations were made and as qualified personnel could be employed, the staff involved with 205(g) activities has grown to about 70 people. We have deliberately taken a staged, conservative approach to expansion of our grants staff in an effort to prevent an "over-shoot" in resources applied to this program.

The IEPA submitted the initial request for construction grant delegation under 205(g) in May of 1978. After several months of negotiations with USEPA, the delegation agreement was signed on August 2, 1978. The initial delegation consisted of program management and review and approval responsibility for Step 1 applications, plans and specifications, value engineering, change orders operation and maintenance manuals, as well as final Step 3 inspections. Based upon a phased schedule (copy attached), additional tasks have been delegated to the IEPA which include review and approval of Step 3 applications, mid-course corrections of facilities plan infiltration/inflow analyses

and sewer system evaluation surveys, Step 2 applications, architectural and engineering subagreements, force account services, facilities plans, user charges, industrial cost recovery and sewer use ordinances, and bids. Even further delegations are being considered including preparation of grant agreements and correspondence, scheduled to become a delegated task on January 1, 1980, and biddability and constructability review of plans and specifications and interim inspections which are scheduled to be delegated to IEPA on October 1, 1980. Currently, biddability and constructability reviews and interim inspections are being performed by the U.S. Army Corps of Engineers. At this point, we have no objection to their continuing these activities.

During the delegation process, the USEPA staff was most helpful and they have continued to be very cooperative up to the present time; particularly at the regional level. The delegation has necessitated a change in regional staff roles from "doers" in the review/approval process to "overseers." They have made this transition in a professional and business-like manner. Monthly conference calls have proven to be a useful tool for improved communication between USEPA and IEPA staff. In this manner, any problems, disagreements or routine questions are not allowed to delay projects or compound into major obstacles to program success. Since delegation, USEPA has made several 205(g) program audits of IEPA. Formal comments and findings made subsequent to the audits have been favorable. The only negative comment involved the Grants Information and Control System (GICS). IEPA currently provides updated computer input documents for USEPA, but we were originally scheduled to

directly input the updated information. To date IEPA has been unable to acquire the necessary hardware compatible with USEPA computers to perform this work.

We are of the firm opinion that full implementation of 205(g) in Illinois would have produced all the benefits originally envisioned in 1977 when the federal act was amended. However, we must report at this date that realization of those benefits and related program savings has been dealt a severe setback by the new requirements for review of advanced treatment projects. On November 7, 1978 (barely 3 months after issuing to Illinois the first delegation in the country), USEPA issued a memorandum setting forth "Interim Procedures for Review of Projects More Stringent than Secondary." These procedures were retroactive to all Step 1, 2, and 3 projects except for Step 3 grants approved prior to October 1, 1978. This interim policy was to remain in effect until a final Program Requirements Memorandum (PRM) was issued.

In essence, our formal 205(g) delegation, as authorized by the Clean Water Act, has been superseded by final PRM 79-7 issued by USEPA on March 9, 1979. From that date forward, the Illinois 205(g) delegation became a "paper tiger." We are now performing a procedural function with reduced input into significant decisions. We have lost effective management control of the program and duplicative reviews have been reinstituted to a degree not experienced in the program's history! Unless program changes are made in the near future, we must reconsider the feasibility of our continued involvement under the 205(g) delegation concept.

. Funding for Construction Grants Activities

Since the passage of PL 92-500, the IEPA has received funding from both Federal and State sources to support the Water Pollution Control Program, including construction grants management activities. The following tabulation shows budgeted funds by source since fiscal year 1972:

| | Federal Sources | | State Sources* |
|---|---|---|---|
| Fiscal Year | 106 ($K's) | 205(g)($K's) | ($K's) |
| 1972 | 646.3 | | 1,499.7 |
| 1973 | 826.8 | | 1,911.3 |
| 1974 | 1,175.7 | | 2,272.6 |
| 1975 | 1,574.3 | | 2,000.5 |
| 1976 | 1,598.0 | | 2,324.2 |
| 1977 | 1,698.0 | | 2,420.8 |
| 1978 | 1,952.0 | (Transition Year) | 2,427.8 |
| 1979 | 1,952.0 | 2,016.0 | (1,803.1) |
| 1980 | 1,831.0 | 2,100.0 | 2,318.6 |

* This data is for direct water pollution control activities and does not include laboratory services, data processing or indirect costs all of which are 100% State funded. For example, in FY80 these costs were $542.9K, $191.9K and $1,383.7K.

() State funding, which was reduced in FY79 under misunderstanding regarding maintenance of effort level required for 205(g) grants, was subsequently restored in FY80.

Prior to FY 1979 precise figures on funds expended for construction grants activities are not readily available. During the 106 funding period, we estimate a range from a low of 6 to 7% of personnel costs in 1972 to a high of 30% in FY 1976 and 1977 (peak obligation period for State funded grant projects) were related to construction grants

activities. With the advent of the 205(g) delegation in FY 1979, approximately 30% of the total water pollution control program costs are related to construction grants and, thus, are funded from the 2% set aside from the Illinois allotment.

In summary, we wish to stress several major points. First, the level of federal funding available in Illinois has an affect on the level of State funding available. In other words, we cannot sustain the full burden of justification for this program at the State level alone. When federal funding commitments stabilize or lessen (i.e., cut in federal 106 funding for FY80), then the state cannot absorb the losses due to inflationary impacts and the costs associated with new program demands. Any "freed-up" 106 funds resulting from the 205(g) delegation have been completely absorbed by new program requirements such as pretreatment. Thus, potential "trade-offs" between available funding sources are, in reality, severely limited.

## Assessment of Factors Affecting Progress

A number of factors affect the rate of progress of the construction grants program. Many of these factors were the subject of a special study conducted by ASIWPCA during the winter and spring of 1979. This study resulted in a report titled "Recommendations for an Improved National Water Quality Program" dated May, 1979. This report on streamlining the national program has already received wide distribution in Congress and the Administration. One subject which was touched upon briefly in that report was review of ADVANCED TREATMENT PROJECTS (AST/AWT

review). However, at the time ASIWPCA did their study, it was too early to determine the full scope and impact of USEPA's new requirements. Now, more than eight months after PRM 79-7 was issued, we can report that this single item has had a major impact on the national water pollution control program. In view of the totally disproportionate affect of the AST/AWT review requirements, we have chosen to focus our testimony on a detailed analysis of this matter.

USEPA Track Record On AST/AWT Reviews

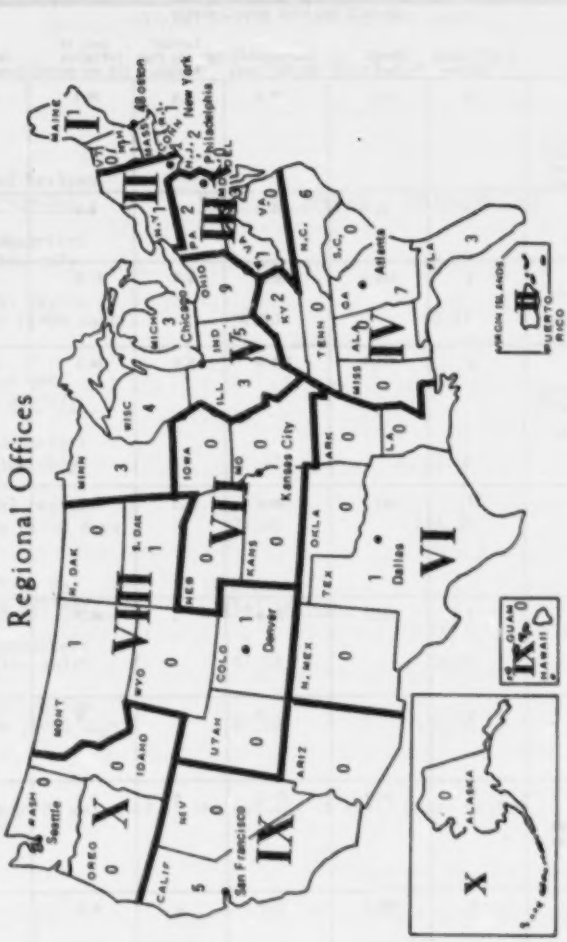
Our analysis of the October 26, 1979 USEPA Summary of AST/AWT Reviews (copy attached) indicates that the best possible result from the reviews completed (33) by headquarters is a net loss of $4.0 million!

We obtained this result in a simple and straight forward manner. The time of review, as shown by a beginning and completion date on the USEPA Summary, was calculated for each project, and a 1% per month inflation cost factor was applied to each project's total cost, less any incremental savings. Adding these figures gave a total inflation cost of $28.6 million for completed project reviews which was subtracted from the total savings of $24.6 million claimed on completed project reviews. The result was the net loss of $4.0 million. However, this "best case" analysis is not realistic because it does not account for additional time delays incurred at local, state and regional levels during the AST/AWT review process. We estimate that the total review takes an average of 190 days for project processing which includes time for headquarters review plus additional state review and preparation, regional review and preparation, and feed-back at each stage. Ninety days of this time is an add-on to the time shown on the USEPA Summary Report to account for the additional delays.

The total AST/AWT review process for all advanced treatment projects (71) has resulted to date in a real net loss due to inflation of about $113.7 million in both federal construction grant funds and municipal local share dollars! Figure 1 indicates the location of the projects under review and Table 1 summarizes the calculations supporting our determinations for these projects. Total review and processing time, including the additional 90 days, was calculated for each project with a resultant total net loss of $113.7 million. The total cost of these projects is $2,252.4 million of which $1,157.2 million have completed review. The balance of $1,095.2 million is still under review or on hold with a completion date still open. This level of approximately $1+ billion under review has been constant for the last month. If the level of project costs for on-going reviews remains at about $1 billion and inflation is 1% per month, costs are increasing at a rate of $10 million each month across the board just for those projects under review with no final disposition.

Table 2 presents a summary of our complete fiscal analysis of the AST/AWT review process. Both our "best case" ($3.96 M) and "worst case" ($113.70 M) analyses are included in the table. In addition, we have provided a correction calculation based upon projected future savings (i.e., $113.70 M is reduced to $90.42 M). Whatever set of assumptions one chooses, it is abundantly clear that the AST/AWT review process is a losing proposition. On the average, for each dollar "saved" about 5.6 dollars have been lost to inflation. Nearly two out of every three reviewed projects has received approval and will continue on to construction as planned with no savings at all.

FIGURE 1




LOCATION OF AST/AMT PROJECTS UNDER REVIEW

TABLE 1

ADVANCED TREATMENT PROJECT REVIEW

| Region | # of Project Reviews | Total Project Costs | Incremental AST/AWT Costs | Capital Savings from Reviews | Loss to Inflation (1% per month) | Net Loss From Reviews |
|---|---|---|---|---|---|---|
| I<br>Maine<br>Vermont<br>New Hampshire<br>Massachusetts<br>Rhode Island<br>Connecticut | 8 | 156.1 | 36.9 | 2.8 | 10.3 | -7.5 |
| II<br>New York<br>New Jersey<br>Delaware | 3 | 81.5 | 12.8 | .6 | 6.8 | -6.2 |
| III<br>Pennsylvania<br>Maryland<br>West Virginia<br>Virginia | 6 | 419.9 | 39.6 | 6.4 | 17.5 | -11.1 |
| IV<br>Kentucky<br>North Carolina<br>South Carolina<br>Tennessee<br>Mississippi<br>Alabama<br>Georgia<br>Florida | 18 | 471.9 | 125.8 | 5.5 | 34.0 | -28.5 |
| V<br>Wisconsin<br>Michigan<br>Illinois<br>Indiana<br>Ohio<br>Minnesota | 27 | 667.7 | 189.6 | 9.3 | 42.9 | -33.6 |
| VI<br>New Mexico<br>Oklahoma<br>Arkansas<br>Louisiana<br>Texas | 7 | 253.1 | 70.8 | 0 | 16.7 | -16.7 |
| VII<br>Nebraska<br>Iowa<br>Missouri<br>Kansas | 0 | 0 | 0 | 0 | 0 | 0 |
| VIII<br>Montana<br>North Dakota<br>South Dakota<br>Wyoming<br>Colorado<br>Utah | 3 | 92.9 | 25.0 | 0 | 4.7 | -4.7 |
| IX<br>California<br>Nevada<br>Arizona<br>Hawaii | 5 | 109.3 | 13.1 | 0 | 5.4 | -5.4 |
| X<br>Washington<br>Oregon<br>Idaho<br>Alaska | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 71 | 2252.4 | 513.6 | 24.6 | 138.3 | -113.7 |

*All dollar figures are shown in millions

TABLE 2

AST/AWT Review - Savings and Costs

(Millions of Dollars)

| Completed Reviews (33 Projects) | Potential Savings | Inflation Cost | Net Result |
|---|---|---|---|
| 1. Headquarters review only | 24.60 | 28.56 | -3.96 |
| 2. Total review time (1+90 days) | 24.60 | 60.81 | -36.21 |
| **Total Reviews (71 Projects)** | | | |
| 1. Headquarters review only* | 24.60 | 73.16 | -48.56 |
| 2. Total review time (1+90 days) | 24.60 | 138.30 | -113.70 |
| **(Correction for future savings)** | **(Projected total savings)** | | |
| 1. Headquarters review only* | 47.88 | 73.16 | -25.28 |
| 2. Total review time (1+90 days) | 47.88 | 138.30 | -90.42 |

* November 20 was used as the cut-off if still under review.



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Further, for those projects where savings are claimed, a majority of projects or processes (i.e., filtration and/or nitrification) are deferred until further water quality analyses or other studies show that the facility or process would result in significant water quality improvement. The deferral does not preclude the process or project from eventually being funded. The procedure for recycling a project for further study or redesign involves additional costs for these activities. More importantly, the time required for reprocessing and review results in subsequent losses to inflation with no assurance that a capital savings will eventually be realized. We have also lost during this deferred period the benefit of applying control hardware that could be reducing pollution of the nations waters.

With the deferral of funding and a final decision pending on many capital expenditures, our estimation of a $113 million net loss (or $90 M) is probably conservative. One recent change which may help to counter these negative results is the increase to $3 million in AST/AWT incremental costs for FY80 for the cut-off for headquarters review. This should reduce some of the duplicative review time and, thereby, reduce losses to a limited degree. However, it is doubtful if this change will substantially alter the overall trend in the net losses realized from the AST/AWT review policy.

Analysis of National Needs Survey

AST/AWT national needs (category II) are $20.56 billion according to the 1978 Municipal Needs Survey. Projects requiring treatment beyond secondary (category II) account for 58 percent of the total national

treatment needs (categories I plus II - $35.68 billion) with incremental costs of $4.7 billion subject to AST/AWT review (calculated at 23 percent of project costs using information contained in the USEPA AST/AWT review summary).

Savings are anticipated from approximately 1 of 3 projects reviewed by USEPA. A capital savings of $24.6 million representing 2.1% of the total project costs of $1,157.2 was indicated by the completed USEPA reviews. Projected savings of 2.1% applied to the total national AST/AWT project costs of $20,560 million would be $431.8 million. However, when relating these "savings" to the estimated losses to inflation caused by project delays, a net loss of significant size is apparent. Estimated losses on projects with reviews (total review time) completed by USEPA is $60.8 million or 5.3% of the total project costs of $1,157.2 million. Projected losses at 5.3% on total AST/AWT needs of $20,560 million would be $1,089.7 million or more than double the potential savings!

Currently, about 10% of the total national AST/AWT project needs (in dollar value) are under review or have been reviewed by USEPA. This represents approximately 30% of the FY 1979 and 1980 construction grants appropriations of $7.6 billion. The inherent delays in the AST/AWT reviews at all levels have subjected approximately one-third of available appropriations to obligation delays and inflation effects. While the AST/AWT incremental costs are the objective of the reviews, the total project cost which includes a much higher percentage of secondary treatment costs receive the major impact. As a spin-off of this situation, planning and forecasting for obligations and subsequent outlays will be more unpredictable in the next three years.

AST/AWT requirements for states vary considerably, some states having a much higher need than others. For illustrative purposes, Figure 2 presents the relative AST/AWT needs as a percentage of total treatment requirements; also depicted are states with over $500 million in AST/AWT needs. Seventeen states have more than 75 percent AST/AWT treatment requirements with 10 of those in Regions IV and V. Thirteen states have $500 million or more in AST/AWT needs. A majority of states (28) have more than 50 percent AST/AWT treatment needs. We believe that there are sound reasons for these findings which are to be found in the nature of the control programs involved.

Correlation of standards and treatment needs

In an effort to address the apparently disproportionate distribution of advanced treatment needs around the country, IEPA has undertaken a qualitative review of the water quality and effluent standards of each state. This was done under the hypothesis that AST/AWT needs are generated by a strong commitment to comprehensive water quality standards or a dedication to point source control of discharges "contributing to violation of generally accepted water quality levels or both.

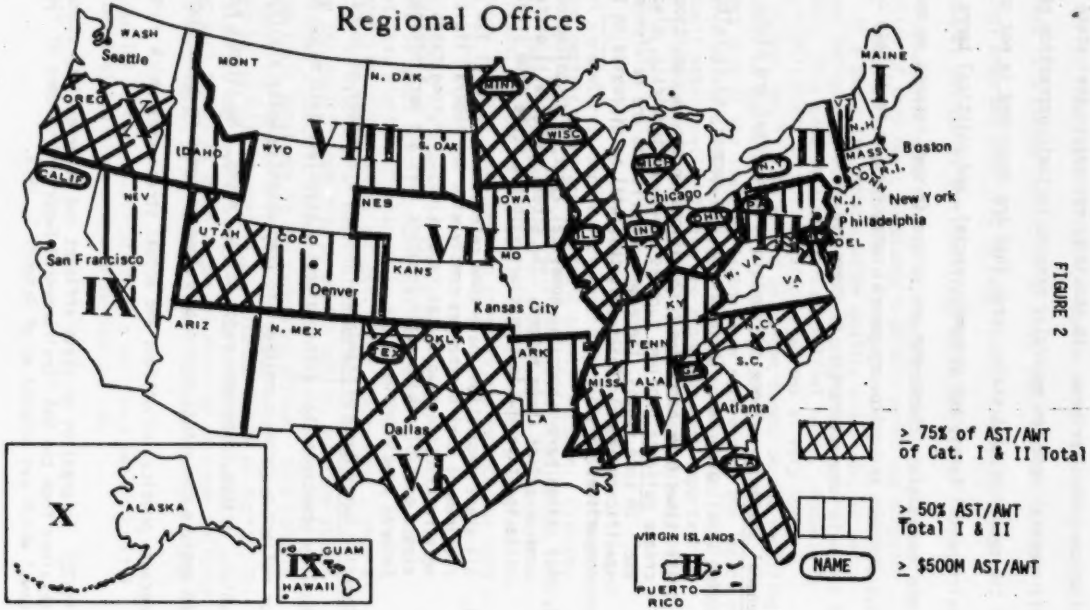
Water quality standards differ significantly from state to state. The type of standards that each state adopts is, in most cases, a general reflection of the water pollution control program that it intends to implement. However, a review of water quality standards must also include evaluation of each element in light of the mechanisms provided for its implementation and an understanding of the implications of any criteria that are not directly included in the standards. The evaluation that follows is not intended to pass judgment on any state's water

FIGURE 2

AST/AWT % OF ALL TOTAL TREATMENT NEEDS

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Regional Offices



pollution control program. It should be recognized that state environmental agencies generally respond to their perception of the needs of the people of that state; needs that are described in not only environmental terms, but economic, social, and political terms also. Since each state's standards* are unique in some respect or another, we have utilized the following general categories to facilitate comparison of the major characteristics of these regulations.

General Standards - There are certain criteria that are historically common to all programs. These are briefly summarized as follows:

1. All states have narrative prohibitions on stream condition that create nuisance problems such as unnatural turbidity, sludge banks, etc. In some states, these general criteria are reinforced by specific numerical limits, but this will be discussed in the specific comparisons.

2. All states have a specific numerical limit on dissolved oxygen for some or all of their waters. The actual number will differ from state to state and in some cases within a state from stream to stream.

3. All state regulations have some reference to federal law and a requirement that discharges comply with any Federal limit that is more restrictive than states regulations. In some cases there is also a prohibition on state programs that are more stringent than Federal requirements.

Specific Water Quality Standards- There are a number of specific water quality standards that either directly translate into major AST/AWT needs or reflect a strong commitment to comprehensive water quality standards which, in turn, generates major AST/AWT needs. No attempt has been made to analyze the actual numerical values assigned to these standards because physical conditions and actual stream uses which dictate these

*NOTE: Information on state effluent and water quality standards was obtained from the BNA "Environmental Reporter" volumes of "State Water Laws" which was updated as of October 1, 1979.

limits will differ from state to state. However, the very existence of a numerical limit is a strong indication of that state's intention to develop control programs that lead to compliance. The specific water quality standards categories are classified as follows:

1. Ammonia - Ammonia or some form of nitrogen limitations recognize the contribution of this toxic substance from both point and nonpoint sources. Ammonia control at POTW's is a major target of AST/AWT review. If a state has ammonia water quality standards, it very likely has included point source control programs to assure compliance. This generates significant AST/AWT needs. Ammonia is not only highly toxic to most aquatic organisms at very low concentrations, but it also exerts an oxygen demand on the receiving stream equal to approximately 4.5 times its own concentration. In many cases this is the limiting factor when determining the impact of a discharge on the dissolved oxygen resource of a stream. We feel that ammonia water quality limits are among the most important criteria in any state's water quality standards ranking only behind dissolved oxygen requirements.

2. "Laundry List" - This is a colloquialism used to describe a list of pollutant parameters. Such a list generally includes limits on heavy metals and certain other acutely toxic substances (i.e., cyanide, arsenic, etc.) that are traditionally considered in pollution control programs. These standards in and of themselves do not generate AST/AWT needs, but are an indication that the state's programs are built around a strong commitment to preserve and enhance the uses of its water resources.

3. Toxic Substances - A number of states have recognized that it is impossible to adopt specific numerical standards for every toxic pollutant that might be discharged to its waters and have enacted limits on toxic substances as a class. Most states have a general prohibition on discharge of materials that would have a significant impact on the aquatic community or public health, but some states have developed a specific formula for identifying acceptable levels of a given toxic substance in the receiving stream. This formula usually takes the form of a fraction of acute lethal levels as determined by toxicity studies (i.e., 1/10 of the 96 hr TLm*). This type of standard may have a direct impact on AST/AWT needs by requiring such things as ammonia control based on instream toxicity, or an indirect impact by reflecting intent to assure stream integrity.

*NOTE: 96 hour TLm is the concentration of a substance needed to kill one half of the test organisms within a 96 hour period.

4. Others - There are a variety of water quality standards that have been adopted by different states. These standards address specific problems that have been identified. Some of the reoccurring criteria are:

   a. Turbidity limits which are either absolute or allowable excursions above natural background levels.

   b. Pesticide limits for the most prevalent agricultural chemicals as well as those whose use has been banned.

   These standards would not generate AST/AWT needs directly, but indicate an understanding of the relationship that exists between point and nonpoint sources of pollution. Although not as obvious, this recognition also reflects an effort to develop "use protecting" water quality standards which of necessity result in increased AST/AWT needs.

Effluent Standards - Application of effluent standards differs significantly from state to state and the method of application will, to a great extent, dictate the AST/AWT needs projected. The most critical elements of a state's effluent standards are discussed as follows:

1. BOD/TSS Standards More Stringent Than Secondary - A number of states have adopted $BOD_5$ and total suspended solids standards that are more restrictive than those required under the Federal definition of secondary treatment. Such effluent limits are generally the result of waste load allocation, modeling or long term experience of the governing agency concerning the impact of discharges on the receiving stream or a combination of the above. These limits would automatically increase AST/AWT needs.

2. Effluent Links to Water Quality - Perhaps the most important component of a state's effluent standards is the relationship between discharge limits and water quality standards. While most states make some reference to this relationship in their regulations, a limited number of states place special emphasis on this link to assure that effluent limits support their water quality goals. AST/AWT needs are generally increased when effluent limits are the result of careful consideration of water quality standards.

3. Waste Load Allocations - Waste load allocations are a method of formalizing the link between effluent and water quality standards discussed above. Some states have requirements for the development of waste load allocation procedures built into their regulations. The same increase in AST/AWT needs result as in "2" above.

Table 3 provides a summary of findings for the elements listed above for "Specific Water Quality Standards" and "Effluent Standards."

Classification of State Standards - Utilizing the information contained in Table 3, we have developed the following general classifications:

Level 1 - Base level standards contain only those criteria contained in the "General Standards" category. There may be other provisions; however, these would not be expected to generate major control requirements. In general, this level is a reflection of the historical status of standards as the national program entered into the era of the 70's.

Level 2

(a) - States with all of the elements of Level 1 standards plus either ammonia water quality standards or limits on other major categories of pollutants (i.e., "laundry list" or toxic substance criteria) should be considered to have water quality standards which justifies Level 2a classification.

(b) - States with specific links between effluent criteria and Level 1 water quality standards (primarily dissolved oxygen limits) have the potential to develop detailed effluent control programs to support more general water quality standards. Linkage should take the form of detailed narrative statements, waste load allocation provisions or $BOD_5$/TSS limits that are more stringent than secondary requirements for specified waters.

Level 3 - Level 3 classification is applied to very comprehensive state standards. Standards in this category contain both ammonia water quality standards and limits on other major categories of pollutants (i.e., a "laundry list" or toxic substance criteria). In general, this level approximates the full scope of the "Redbook" criteria issued by USEPA in July 1976, and begins to address more recent concerns associated with the NRDC Consent Decree relating to toxic substances.

It should be noted that the "Redbook" criteria play an important role in the national program. The following quote is taken from that document:

> "Water quality criteria do not have direct regulatory impact, but they form the basis for judgment in several Environmental Protection Agency programs that are derived from water quality considerations. For example, water quality standards developed by the states under Section 303 of the Act and approved by EPA are to be based on the water quality criteria (emphasis added), appropriately modified to take account of local conditions."

In actual practice, USEPA has been very assertive in the application of these criteria. We believe that the proposed rules (copy attached) published in the July 10, 1978 issue of the Federal Register are an accurate indication of the intent and position already pursued by USEPA over the past several years. In particular, we note the following statement from this proposal:

> ". . . EPA feels that the data base for the Redbook numbers is sufficiently broad for the numbers to have presumtive applicability (emphasis added). EPA's policy is that a state may adopt a numerical concentration level for a Redbook pollutant which is less stringent than the Redbook number, but only if a state provides adequate technical justification for the deviation."

As a matter of program practicality, few, if any, states have the technical and fiscal resources readily available to mount an effective counterthrust to this federal mandate. We know of one state that has adopted all the "Redbook" criteria due to pressure from USEPA. Several others have initiated law suits over these matters, but with very limited success to date. We provide this discussion not to downgrade the necessity for comprehensive standards, but rather to show the ties between federal and state activities. It is clear to us that Level 3 standards are today and have been in the past expected of the state by USEPA.

The results of our application of this classification system for the contiguous 48 states* as presented in Table 3 (right hand column) are summarized as follows:

Level 1 - 15 states

Level 2a - 11 states

Level 2b - 11 states

Level 3 - 11 states

If the hypothesis we put forth in the beginning of this discussion is correct, the states with Level 2a, 2b and 3 standards should have high

*NOTE: Alaska, Hawaii and the U.S. territories are not discussed because of atypical geographic or population conditions.

TABLE 3

| | Specific Water Quality Standard | | | | | | | | Effluent Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date of Latest W.Q. Std. Revision | D.O. Std. | Ammonia W.Q. Std. | Pesticide Std. | Specific Toxic Sub. Criteria | "Laundry List" | Turbidity Std. | BOD/TSS (1) | Ammonia | Linkage to W.Q. Std. | General Classification |
| Alabama | 12/77 | X | | | | X | | | X | | 2b |
| Arizona | 5/76 | X | | X | X | X | | | | | 2a |
| Arkansas | 9/75 | X | | X | | X | | | | | 2a |
| California | 2/79 | X | X | X | X | X | | | | | 3 |
| Colorado | 7/78 | X | X | X | X | X | | | | | 3 |
| Connecticut | 11/77 | X | | | | | | | | | 1 |
| Delaware | 4/75 | X | X | | | X | | | | | 2a |
| Florida | 3/79 | X | X | | X | X | | | X | | 3 |
| Georgia | 6/78 | X | | | | | | | X | | 2b |
| Idaho | 6/73 | X | | | | X | | | X | | 2b |
| Illinois | 5/79 | X | X | X | X | | X | | X | | 3 |
| Indiana | 5/78 | X | | X | | | | | | | 2a |
| Iowa | 3/79 | X | X | | X | | | | | | 3 |
| Kansas | 8/78 | X | X | | | X | | | | | 2a |
| Kentucky | 7/75 | X | | X | | | | | X | | 2b |
| Louisiana | 10/77 | X | | | | X | | | | | 1 |
| Maine | 8/77 | X | | | | | | | | | 1 |
| Maryland | 7/78 | X | | | | X | | | (2) | | 2b |
| Massachusetts | 2/79 | X | | | | | | | | | 1 |
| Michigan | 12/73 | X | | X | | | | | X | | 2b |
| Minnesota | 10/73 | X | X | | | X | X | | | | 2a |
| Mississippi | 7/77 | X | | X | | | | | (2) | | 2b |
| Missouri | 4/75 | X | | | | | | | | | 1 |
| Montana | 9/74 | X | | | | X | | | | | 1 |
| Nebraska | 10/77 | X | X | | | | | | | | 2a |
| Nevada | 2/78 | X | | | | X | (3) | | X | | 2b |
| New Hampshire | 4/77 | X | | | | X | | | | | 1 |
| New Jersey | 1/78 | X | | | X | X | | | | | 2a |
| New Mexico | 4/77 | X | | | | | | | | | 1 |
| New York | 9/78 | X | | | | | | | | | 1 |
| North Carolina | 12/78 | X | | | | | | | (2) | | 2b |
| North Dakota | 4/77 | X | X | | X | X | | | | | 3 |
| Ohio | 2/78 | X | X | X | X | | | | | | 3 |
| Oklahoma | 3/79 | X | X | X | | X | | | | | 3 |
| Oregon | 4/76 | X | | | X | | | | | | 2a |
| Pennsylvania | 10/76 | X | X | | X | X | | | (2) | | 3 |
| Rhode Island | 12/77 | X | | | | X | | | | | 1 |
| South Carolina | 4/77 | X | | | | | | | | | 1 |
| South Dakota | 1/79 | X | X | X | X | X | | | X | | 3 |
| Tennessee | 12/77 | X | | | | | | | (2) | | 2b |
| Texas | 2/76 | X | | X | | | X | X | | | 2b |
| Utah | 10/78 | X | X | X | X | X | X | | | | 3 |
| Vermont | 3/78 | X | | | | X | | | | | 1 |
| Virginia | 11/74 | X | | | | | | | | | 1 |
| Washington | 12/77 | X | | | | X | | | | | 1 |
| West Virginia | 4/78 | X | | X | X | | | | (2) | | 2a |
| Wisconsin | 6/78 | X | X | | | | X | X | | | 2a |
| Wyoming | 3/79 | X | | | | X | | | | | 1 |

Source: BNA - Environmental Reporter, "State Water Laws" updated as of October 1, 1979

1. Identified are any effluent limits contained in regulations that are more stringent than Secondary Criteria

2. Specific Waste Load Allocation Provisions

3. BOD Water Quality Standards

AST/AWT needs relative to their total POTW grant needs. Table 4 presents a listing of each state's AST/AWT needs in rank order, as a percent of the states total need, and indicates the class level of their standards.

Of the 48 contiguous states, 40 or 83% satisfy the basic hypothesis; that is, states with comprehensive standards have high AST/AWT needs (greater than 50%) and states with Level 1 standards have relatively low AST/AWT needs. Figure 3 presents this information in the form of probability curves. This characterization clearly shows that states with more comprehensive standards (Group 3, 2a, 2b) have a significantly greater probability of generating high AST/AWT needs than do states with base level standards (Group 1). For example, Figure 3 shows about a 73% probability that comprehensive standards will result in 50% or greater AST/AWT needs as compared to only about a 9% probability for base level standards.

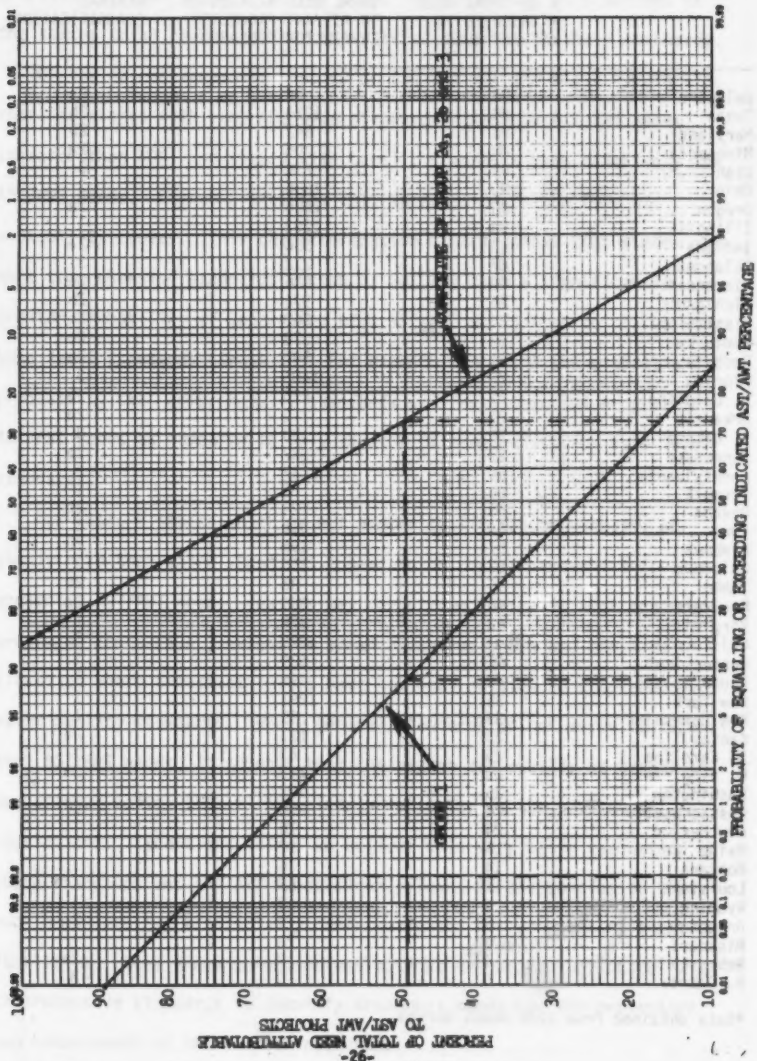
For those 8 states which do not appear to fit our hypothesis, we simply note that where standards appear to be too comprehensive for the projected AST/AWT needs, reasons may range from unusually high secondary treatment costs (i.e., extensive ocean discharge projects, etc.) to a situation where treatment levels have not been related to comprehensive water quality standards. Where general standards do not serve to support high AST/AWT needs, it appears that the reason can usually be traced to operational policy that is not clearly reflected in the published regulations. Exceptions aside, we believe this very basic evaluation of state standards and AST/AWT needs clearly leads to the conclusion that such needs are <u>not</u> artificially contrived costs for unnecessary treatment facilities. They are a conscientious attempt on the part of states with comprehensive standards to identify treatment needs for the protection and enhancement of their water resources.

Table 4

| | % OF TOTAL NEED ATTRIBUTED TO AST/AWT NEED | TOTAL NEED ATTRIBUTED TO AST/AWT PROJECTS* IN MILLION DOLLARS | GENERAL CLASSIFICATION |
|---|---|---|---|
| Delaware | 100 | 94 | 2a |
| Texas | 99 | 1214 | 2b |
| Maryland | 98 | 843 | 2b |
| Minnesota | 98 | 705 | 2a |
| Utah | 97 | 230 | 3 |
| Ohio | 95 | 1656 | 3 |
| Oregon | 95 | 1536 | 2a |
| Illinois | 94 | 1293 | 3 |
| Indiana | 92 | 536 | 2a |
| Oklahoma | 87 | 212 | 3 |
| Wisconsin | 86 | 636 | 2a |
| Michigan | 85 | 976 | 2b |
| Mississippi | 83 | 260 | 2b |
| Kentucky | 82 | 373 | 2b |
| Georgia | 81 | 541 | 2b |
| Florida | 75 | 1405 | 3 |
| N. Carolina | 75 | 456 | 2b |
| Arkansis | 72 | 171 | 2a |
| S. Dakota | 70 | 99 | 3 |
| Tennessee | 70 | 387 | 2b |
| Pennsylvania | 69 | 1132 | 3 |
| Vermont | 66 | 85 | 1 |
| Nevada | 65 | 121 | 2b |
| Iowa | 64 | 316 | 3 |
| Alabama | 57 | 195 | 2b |
| Colorado | 57 | 316 | 3 |
| Idaho | 55 | 98 | 2b |
| New Jersey | 48 | 866 | 2a |
| Virginia | 43 | 328 | 1 |
| California | 42 | 1979 | 3 |
| Connecticut | 40 | 139 | 1 |
| Rhode Island | 40 | 96 | 1 |
| New York | 35 | 1291 | 1 |
| New Hampshire | 33 | 95 | 1 |
| Kansas | 29 | 123 | 2a |
| S. Carolina | 29 | 63 | 1 |
| W. Virginia | 29 | 113 | 2a |
| Washington | 25 | 192 | 1 |
| Massachusetts | 24 | 250 | 1 |
| New Mexico | 24 | 20 | 1 |
| Maine | 15 | 22 | 1 |
| Montana | 14 | 6 | 1 |
| Louisiana | 12 | 57 | 1 |
| Wyoming | 6 | 3 | 1 |
| Arizona | 5 | 9 | 2a |
| Missouri | 3 | 23 | 1 |
| Nebraska | 1 | 2 | 2a |
| N. Dakota | 0 | 0 | 3 |

*Data obtained from 1978 Needs Survey

FIGURE 3


PERCENT OF TOTAL NEED ATTRIBUTABLE TO AST/AMT PROJECTS
PROBABILITY OF EQUALING OR EXCEEDING INDICATED AST/AMT PERCENTAGE
90
80
70
60
50
40
30
20
10

It should be noted that ASIWPCA currently has underway a detailed study of state water quality standards. This study grew out of the findings of the streamline initiative referenced previously. We feel that our initial effort, while much more narrow in scope, will ultimately prove compatible with this larger study. In fact, our pilot effort has confirmed the foresight of the ASIWPCA project given our findings of the strong relationship between state standards and project needs expressed in grants funding.

Impact of AST/AWT Review on Illinois Program

In order to demonstrate the specific impacts of PRM 79-7, we have chosen to highlight the case histories of two Illinois projects that have progressed to the point of a review at USEPA headquarters. These projects are the Galesburg Sanitary District, and the DuPage County Department of Public Works (DPCDPW) - Woodridge treatment facility. To set the stage for this discussion, we will present the following summary of our original construction grants management strategy and of the status of our water quality/effluent standards:

1. Grants strategy - The five-year funding plan for the Illinois water pollution control effort was forwarded to USEPA in May, 1978, after the Clean Water Act of 1977 became law. This plan listed the candidates for Step 3 grants according to fiscal year quarter when plans and specifications were estimated to be completed. We intended that an orderly progression of funding occur for Step 3 projects with priority positions 1-600 (out of a total of 1150 + projects) during the five year authorization period with exception of a few projects involving the Metropolitan Sanitary District of Greater Chicago (MSDGC) and communities tributary thereto. Projects in 1-600 priority position were to be funded for Step 3 upon satisfactorily completing Step 2 design. Generally, Step 2 design funding was to be incremental for the remaining 601-1150 + projects starting with 601-700 in FY1980, 701-800 in FY1981 and 801-900 in FY1982. This was intended to provide an orderly flow of projects ready for Step 3 construction grants. This plan was not expected to complete all

funding of the Illinois requirements for the currently eligible needs. MSDGC plant projects at West Southwest and Northside, as well as the North Branch of the Chicago River, some Calumet and the Des Plaines TARP would have remained unfunded. Downstate projects in priorities 601-1150, with the exception of alternative and innovative candidates, were also to remain unfunded because of federal authorization levels.

2. Water quality/effluent standards - Approval of Illinois' water quality standards by the USEPA dates back to June 5, 1972. The Region V Administrator approved all of Illinois standards with two exceptions. Interestingly enough, one of these exceptions was the "Restricted Use" designations (now designated "Secondary Contact"). The USEPA was concerned that such less restrictive use designations were inconsistent with "...the letter and spirit of the (Federal Water Pollution Control) Act that all waters be capable of supporting recreational use and desirable aquatic biota." The "Restricted Use" designation was subsequently modified on July 27, 1973 to the "Secondary Contact" concept in force today. On November 23, 1973 a notice appeared in the Federal Register (Vol. 38, No. 228) which approved all portions of Illinois' water quality standards pertinent to this review. Our standards were again reviewed in 1976 and revisions adopted at that time were approved by letter from the Region V Administrator dated March 29, 1976. The conceptual basis of the Illinois effluent standards for deoxygenating waste preceded the passage of the Illinois Environmental Protection Act. As early as 1968, the Illinois Sanitary Water Board adopted effluent limits on $BOD_5$ that were essentially the same as those contained in the present Illinois standards (Rule 404 of Chapter 3). When the Illinois Pollution Control Board adopted the effluent limits (March 7, 1972) it required as "a standard representing ordinary good practice" that all oxygen-demanding wastes receive secondary treatment. The IPCB found that:

> "prescribing the uniform use of readily available technology as a minimum serves to prevent local nuisances, to avoid premature exhaustion of assimilative capacity, and to further the established federal and state policy against degradation of clean water."

The IPCB recognized, however, as had its predecessor the Sanitary Water Board, that for many low flow receiving streams in this State, secondary treatment would simply be insufficient to assure that water quality standards would be met. "In such cases the very nature of water quality standards requires that additional measures be taken beyond those required by ordinary good practice to reduce further the discharge of contaminants to the stream." (PCB Opinions, Vol. 3. p. 766) The IPCB required discharges to streams with dilution ratios of less than 5:1 to meet, at a minimum, a standard of 10 mg/l, $BOD_5$ and 12 mg/l, suspended solids (Rule 404). The IPCB set these requirements, beyond secondary, not to impose an acceptable minimum of uniform treatment, but to assure satisfactory stream quality. The IPCB's nitrification requirements are purely water quality limits and effluent controls are imposed only when such requirements are essential to protect stream oxygen levels and fish from the toxic effects of ammonia.

Thus, the effluent standards contained in Chapter 3 (Rule 404) establish the critical relationship between effluent limits and water quality as required under Section 303(d)(1)(C) of the Federal Act. This section specifies that maximum daily loads (effluent limits) be established"...at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." It should be noted that under our federally approved Continuing Planning Process Illinois complied with Section 303(d)(1)(A) and designated the waters of the state relevant to this discussion as water quality limited. In addition, under Section 303(e)(3) of the Act and pursuant to the same planning process Illinois was required to prepare Water Quality Management Basin Plans. These plans were approved by USEPA on September 20, 1977. The basis for the treatment requirements in these plans was the same effluent and water quality standards discussed above.

Galesburg Sanitary District - This project was certified to Region V for a Step 3 grant on November 6, 1978. Our original five-year plan specified that Galesburg would receive a Step 3 grant in the first quarter of FY1979 (Fall, 1978). Thus, at that point, we were on schedule. However, the Galesburg project was delayed at the last moment when, on November 7, 1978, "Interim Procedures for Review of Projects More Stringent Than Secondary" was issued by the USEPA. Upon request we submitted a checklist for this project to Region V in a March 19, 1979 transmittal. Region V of USEPA concurred with the state's position and recommended full funding of the project. Since the AST portion of the project exceeded one million dollars, the project was sent from Region V to USEPA headquarters on May 21, 1978, for review. After a three and a half month review by USEPA, IEPA received a draft Advanced Treatment Task Force Report on September 1, 1979.

The Galesburg project was reviewed by the Advanced Treatment Task Force in accordance with PRM 79-7. Key criteria of PRM 79-7 include: a) evaluation of seasonal operation, b) consideration of land application, c) demonstration of significant water quality improvement resulting from



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the project, and d) public awareness of local financial impact. Local financial impact of this project was determined to be within EPA's high cost criterion and, therefore, acceptable to the Task Force. Seasonal treatment and land application alternatives were questioned by the task force and addressed in our response to their review document, but these items were not viewed to be major issues. The major issues contained in the draft Galesburg report were 1) stream use classification, 2) water quality modeling, and 3) adequacy of treatment units to achieve specified effluent limits; all of which were assumed to relate directly to the PRM criteria for demonstration of water quality improvement. Task force concerns and our responses are discussed below.

1. Stream use classification

   Task force concern - The general use classification (including aquatic life protection) may be inappropriate for the "upper segment" of Cedar Creek, the receiving waters for the Galesburg discharge.

   IEPA response - Physical, chemical and biological field data were presented to document that habitat is not a limiting factor. With satisfactory water quality, a diversified aquatic community can be sustained in the upper segment of Cedar Creek. The history and development of Illinois' water quality standards, their compatibility with PL 92-500 goals and their approval by USEPA was also documented.

2. Water quality modeling

   Task force concern - Predictive capability of IEPA stream analysis is questionable due to insufficient calibration/verification.

   IEPA response - The nature of a steady state Streeter Phelps analysis precludes the opportunity for "verification" per se to predict future conditions in a real life dynamic stream. Calibration to known existing conditions would be of little value in calibration for predicting future conditions when it is known that major factors (i.e., organic loads) will change drastically. IEPA emphasized the care and consideration given to selection of such pertinent factors as reaction coefficients, travel time, etc. Highlighting the IEPA discussion was reference to the task force statement "this model can be considered adequate only for assessing the general range of water quality likely to prevail under projected conditions" with the conclusion that for this particular stream segment little more could be achieved or expected from any level of modeling available today.

3. Adequacy of treatment units

Task force concern - Ammonia removal is justified only if the stream use classification is appropriate; post aeration may be an acceptable alternative to $BOD_5$ reduction below conventional secondary treatment.

IEPA response - Ammonia reduction is necessary due to both deoxygenating and toxic properties. The present stream use classification is indeed justified. Post aeration to approximately 6.0 mg/l D.O. is both achievable and desirable. Post aeration beyond this point is more difficult and of almost no significance in achieving downstream dissolved oxygen standards. Filtration is necessary to achieve consistent compliance with effluent limits demonstrated to be necessary and specified in the federally approved, NPDES permit for this discharge. (See attachment for a more detailed discussion of this matter.)

IEPA was originally expecting a Step 3 grant to be issued for the project within three months after the November 6, 1978 certification, but due to the requirements of PRM 79-7 the project has been significantly delayed. The original construction costs were estimated at $30.9 million. Excluding filtration and utilizing an inflation rate of 1 percent per month, and an estimated delay of 10 months, PRM 79-7 has caused an increase in project costs of $2.8 million. In comparison, the capital cost of the final filtration facilities (the AST aspect most questioned by USEPA) was $2.7 million. Thus, at best, it appears that this AST review would result in a net loss of $100,000. Should the AST portion relating to filtration eventually be "deferred", the consultants for the Sanitary District would have to do some redesign work involving an additional 90 day delay. This further delay would result in another $840,000 loss to inflation costs. Thus, the total net loss would be $940,000 to say nothing of the continued degradation of Cedar Creek. Finally, if water quality analysis confirms our conclusion that filtration is necessary, these facilities will have to be added later at greatly inflated costs.

Deferring and phasing capital expenditures for this project seems to be implied as a viable option in the Task Force Report. While we recognize that such an approach is procedurally possible, we also provide practical counsel that there are problems involved which should be carefully considered. Funding the construction of very large, complex treatment facilities in phases can often be undertaken because of the larger cash flow/tax base potential. In fact, some larger communities in Illinois, such as Chicago and Rockford, have implemented control programs by phased construction of treatment works. However, financing the construction of waste treatment facilities for smaller communities often cannot be phased because of constraints associated with local government and financial institutions. Also, financial institutions are extremely hesitant to provide funding for projects that will not bring the facilities into complete compliance with state laws and regulations.

DPCDPW - Woodridge - In May, 1979, Region V staff advised us that additional information would be required to justify the "advanced secondary" portion of this project. We submitted the AST/AWT checklist to Region V on June 1, 1979. Inasmuch as the AST portion of the project was greater than one million dollars the project was sent to EPA headquarters for review and approval.

The Advanced Waste Treatment Task Force draft report dated October 26, 1979 was received October 29, 1979 at IEPA. The task force report for Woodridge did not clearly relate to specific PRM 79-7 criteria. Numerous issues dealt with facility planning considerations such as regionalization vs. non-regionalization, project flow rates, sizing of treatment units, and cost-effectiveness of alternatives. Most of these

questions apparently resulted from confusion on the part of the task force in trying to review, in a relatively short time, a complex facility plan that had been under continuing preparation, review and revision for several years prior to the AST/AWT process. Virtually all facility planning conclusions made by the task force were erroneous and easily addressed by referencing the proper documentation from the approved version of the facility plan and supporting data.

As was the case with Galesburg, major conclusions and recommendations of the Woodridge report concerned 1) stream use classification, 2) water quality modeling, and 3) selection of treatment units.

1. Stream use classification

   Task force concern - Due to urban related stress (both point and non-point pollutional loads, partial channelization, etc.), high level stream use designation, such as aquatic life protection, may not be realized even after implementation of AST.

   IEPA response - Physical, chemical, and biological data were presented to document that aquatic life habitat exists in the receiving stream. Historical data on fish collections was used to demonstrate that prior to heavy urban encroachment the East Branch DuPage River supported numerous sport fishes. The fishable/swimmable goal of PL 92-500 and USEPA criteria for downgrading streams from those uses were discussed; clearly noting that none of those criteria had been met for the East Branch. Reference was made to Illinois' commitment to a multi-source pollution abatement effort in the metropolitan area addressing both point and non-point sources. The need for water related recreational opportunities in urban areas and Illinois' determination to improve water quality in the East Branch was also emphasized.

2. Water quality modeling

Task force concern - In accordance with the multitude of pollution sources within the East Branch watershed and the complex interaction of the pollutants once in the stream, a sophisticated dynamic model was used to simulate future water quality conditions in the receiving stream. The task force recommended further calibration/verification prior to relying on model results.

IEPA response - IEPA deferred to Northeastern Illinois Planning Commission (NIPC) to respond in detail to this matter since NIPC is the organization that undertook and completed the modeling. However, it is our understanding that the basis of the recalibration efforts is associated with questions about model simulations during high flow periods that are impacted by nonpoint sources. NIPC has expressed confidence in the simulations during normal and low flow conditions. Since Illinois effluent standards are based on low flow conditions, questions about high flow recalibrations are of little significance to the design basis of the Woodridge project.

3. Selection of treatment units

Task force concern - Ammonia removal is probably necessary but was not justified in the original approval process. Filtration should be deleted from the project pending additional dissolved oxygen modeling.

IEPA response - Illinois' ammonia removal requirements are based on instream concentrations, not arbitrary assignment of an effluent standard. The water quality standard was reviewed and approved by USEPA several years ago. Instream violations of ammonia are documented in several data sources (IEPA samples, NIPC samples, Illinois Water Survey samples), all of which were contained in the prior approval package. Filtration is necessary to achieve identified standards and federally approved NPDES permit limitations (same justification as Galesburg).

The IEPA certified this project for a Step 3 grant on November 1, 1979. Our original five-year plan specified that Woodridge would receive a Step 3 grant in the fourth quarter of FY 1979 (Summer, 1979). Nearly four months of slippage was added to the schedule while we awaited the headquarters review. In addition, DPCDPW has indicated that if they do not receive a Step 3 grant in November, 1979, they may not be able to sell the bonds necessary for the local share for another 7 months. This is because the bonds cannot be sold without the grant in hand and without

an up-to-date audit. Their previous audit will be out-of-date by December 1, 1979. Thus, the process of rearranging the local share could take another 7 months if the Step 3 grant is not available to DPCDPW by December 1, 1979. The expected construction cost for the Woodridge treatment works is approximately $21.3 million. Figuring inflation at 1% per month for an 11 month delay, PRM 79-7 could increase the project cost (excluding filtration) by an additional $2.046 million. The incremental AST cost for the filtration part (most questioned by USEPA) of the project was estimated at $2.7 million. Thus, deferral of these facilities pending further studies would appear to yield a net savings of only $654,000. However, if additional studies confirm our position regarding the need for filtration, then all savings will be lost and more inflation losses will be incurred.

## Analysis and Conclusions

We have documented the fiscal and programmatic impacts of the AST/AWT review process. We have first presented the negative aspects of this process out of a feeling of obligation to objectively report on the status of this activity. We firmly believe that it is most important to come to grips with these harsh realities in order to set the stage for constructive consideration of future actions.

From a broad perspective, one can view the current AST/AWT review process as a systematic "program audit" of the real substance of the national water quality program. In fact, this may be one of the largest,

working level national reviews of any environmental program to date. Seen as such, this Congressionally mandated "audit" has produced some meaningful results (for a cost of $113 million to date). As was documented previously, two out of every three projects or 67% have cleared this review the first time through. This is a most significant achievement considering that AST/AWT reviews are aimed at only those projects alleged to be the most wasteful, and given that USEPA has retroactively applied the most current criteria, and in some cases completely new substantive criteria, to projects that started planning and design years ago. Of the remaining 33%, most projects, or portions thereof, were not rejected but merely "deferred" for further study or documentation to justify particular features viewed by USEPA as possibly "deficient" given today's criteria. All in all, this track record should serve to renew Congressional confidence in the national program. At the very least, these results are supportive of the basic technical soundness and strength of the state programs involved. In fact, it appears that the majority of state water pollution control programs are WORKING exactly as per the design set forth by federal/state statutes. Where comprehensive water quality and/or effluent standards are in operation, related construction grants projects are being pursued to address identified environmental problems; that is, to clean up the nations waters.

The approach envisioned by the Appropriations Committee has also set the stage for another potentially constructive result. Contrary to the mandate of the Federal Act, the USEPA has never really applied, in an operative sense, the concept of "best practicable waste treatment technology" (BPWTT) for publicly owned treatment works. Thus, regional

offices and states have moved ahead exercising their best judgment regarding the proper balance between economically achievable effluent limitations and socially acceptable water quality goals. Under such a decentralized scenario, it is most understandable that different interpretations and technical applications have resulted over time. Instead of taking this current opportunity to deal directly with these substantive issues and to build upon past state efforts and experience, USEPA has established via PRM 79-7 a procedural "smokescreen". Their distinctions between "AST" and "AWT" and the different review criteria applied to each category do little to constructively resolve, in the public arena, valid differences in professional opinion and judgment. To the contrary, our analysis of nearly two dozen final USEPA reports indicates that this process appears to be further compounding technical inconsistencies and questions. Unfortunately, this ad hoc review mechanism has created a technical "second-guessing" game between USEPA headquarters and states over what pollution control hardware (e.g. final filtration) is necessary to consistently achieve limitations, and what effluent limitations are necessary to meet water quality standards. As we have amply documented, state programs, for the most part, have withstood this challenge, but at significant cost in the form of inflation losses for the national construction grants program. In other words, the AST/AWT review developed by USEPA is a futile process which does not address the fundamental concerns of the Appropriations Committee.

All is not lost, however, if we act promptly to redirect our efforts in a positive manner. We can utilize this experience and the information submitted to USEPA headquarters as part of this review process as a basis for the development of a comprehensive policy for BPWTT. Now is also the time to face the related questions of treatment plant reliability, margins of safety, and compliance monitoring and enforcement requirements. These matters must be addressed through the formal regulatory channels which provide for effective due process for all concerned parties. We must not allow this ill-advised, procedural smokescreen to further damage the national program.

At this point, it is important to pause and reflect for a moment on what is really happening under the AST/AWT review. In 1972, the nation adopted a very aggressive program based upon a concept of incremental, staged reductions in pollutant discharges for both industry and POTW's leading towards specific water quality goals. In 1977, a "roll-back" approach was developed for industrial dischargers in the form of "best conventional technology". Now, in 1979, an ad hoc, "roll-back" approach utilizing new substantive criteria has been implemented for POTW's via PRM 79-7. However, instead of an up-front combination of statutory and regulatory determinations as was the case with industry, this ad hoc AST/AWT review mechanism has created a technical second-guessing game without concern for administrative due process or overall program integrity. Regardless of the original intent behind this situation, the AST/AWT review process has clearly focused a penetrating spotlight on the extensive lack of programmatic coordination between construction grants,

NPDES permits and water quality standards at the national level. In response to these matters, USEPA has recently completed an initial effort to pull these program areas together via their "National Municipal Policy and Strategy". While we are supportive of the concept behind these efforts, we believe that the analysis presented herein clearly shows that the problems which must be addressed are more basic, and will not be fully resolved by superficial procedural mechanisms for more programmatic interaction.

In summary, the AST/AWT "program audit" can be viewed, in the broadest sense, as a positive contribution to the national program. One could relate the $113 million in cost to the remaining $10 billion (FY 81-82) in authorized funding for construction grants and conclude that for about a 1% expenditure we may achieve valuable refinement in the program. However, this positive result is only valid to the extent that the audit has an end point. In common practice, one does not continue such an evaluation ad infinitum, but rather extracts and subsequently applies the lessons learned. It is to this critical matter that we turn in the recommendations that follow.

## Recommendations

Based upon the data and analysis presented in this testimony, we have the following specific recommendations to expedite the national construction grants program:

1. USEPA should be directed to delete the PRM 79-7 review requirements for all projects that received Step 2 design grants prior to October 1, 1979. This would allow those projects originally caught in the retroactive application of new substantive requirements (not previously imposed by statute or regulation), and currently caught in a recycling action to be completed in an orderly and timely fashion.

   We believe that this review experience and previous work undertaken by USEPA could serve as a basis for defining the maximum effluent control levels associated with the economically achievable criterion so vital to the BPWTT concept. As part and parcel of this determination, USEPA should address current differences of professional opinion concerning what pollution control hardware will achieve in terms of these defined control levels. During this development period, it is most important that action be taken to prevent continued technical "second guessing" of project justifications and designs. As we have shown, the delays and costs inherent in this process exceed the potential "savings"; especially for projects into the design phase. We selected the October 1, 1979 date because it was not until this time that USEPA headquarters had completed enough reviews to begin to provide any feed-back to the regions and states. Thus, for projects in the design process during the period between March 9, 1979 (date of issuance of PRM 79-7), and October 1, 1979, there was still no information upon which to base any project modifications.

2. USEPA should be instructed to formally clarify the concept of BPWTT in terms of treatment processes and related effluent levels by September 30, 1980. In order to provide for widespread consideration of this matter, USEPA should publish their proposed determinations by June 1, 1980 and provide a 60 day period for public review and comment. This clarification, once in effect, should be applied to any project that has not received step 1 facilities plan approval as of that date. Pursuing such a course would provide an opportunity for open, public consideration of the substantive technical issues associated with BPWTT. In addition, normal procedures for effective due process could be implemented providing all interested parties with a chance to participate, and to refine, as necessary, their respective programs.

3. USEPA should be directed to reconsider the "National Municipal Policy and Strategy." The initial document does not adequately address the fundamental issues created by the AST/AWT review process. In fact, the basic thrust of this recent effort towards more timely compliance for POTWs has been adversely affected by PRM 79-7.

Ultimately, we must re-evaluate the basic issues of water quality standards and even the goals of the Act if the approach set forth in PRM 79-7 is to remain in vogue. USEPA cannot simply make "funding eligibility decisions" in a vacuum without considering the interrelated impacts on the rest of the national program including state and local statutes, regulations and finances.

4. USEPA should apply the provisions of Section 302 of the Act for future projects involving control levels beyond BPWTT. We believe that this recommendation is consistent with the overall intent of the federal act. Section 301(b)(2)(B) requires POTW compliance with BPWTT by July 1, 1983. Section 201(g)(2)(A) links construction grants funding to implementation of BPWTT. Part (B) of that section clearly specifies that application of even more advanced technology should come, but "... at a later date..." Section 302 of the Act also provides a mechanism for directly considering any more stringent limitations (beyond BPWTT) directly dictated by water quality considerations. This procedure provides an opportunity for careful evaluation of the social and economic impacts of such a decision as well as public input into the process. Probably the most important aspect of this review is a detailed reconsideration of the water quality standards that dictate these exotic effluent control levels. If USEPA approved water quality standards cannot pass the test of economic and social justification, they must adjusted downward, and effluent control requirements be modified accordingly.

## ATTACHMENTS

- 205(g) Delegation Schedule for Illinois
- October 26, 1979, USEPA AST/AWT Review Summary
- Proposed USEPA Rules for Water Quality Standards
- Galesburg Technical Discussion

SCHEDULE OF DELEGATED TASKS

I. Purpose

The purpose of this Appendix is to set forth the schedule for the IEPA assuming delegated construction grant program authority under the State Management Assistance Program.

II. Schedule

The delegation schedule is shown below. The IEPA agrees to proceed with assuming functional program delegations in accordance with this schedule, with manpower staffing and training to take place in accordance with the Organization and Resource Analysis prepared under Appendix A.

| Appendix Task | Schedule Date to Begin Training or Preparing to Accept Delegation | Schedule Date to Assume Full Responsibility (Training Ends) |
|---|---|---|
| D. Program Management | N/A | July 1, 1978 |
| E. Step 1 Applications | N/A | July 1, 1978 |
| F. Plans & Specifications and Step 3 Applications | N/A | December 15, 1978 |
| G. Value Engineering | N/A | July 1, 1978 |
| H. Change Orders | N/A | July 1, 1978 |
| I. Operation and Maintenance Manuals | N/A | July 1, 1978 |
| J. Final Step 3 Inspections | N/A | July 1, 1978 |
| K. Mid-Course Facility Plan | July 1, 1978 | December 15, 1978 |
| L. Infiltration/Inflow Analysis and SSES | | |
| Part I. Separate Sanitary Sewer Systems | July 1, 1978 | December 15, 1978 |
| Part II. Combined Sewer Systems | November 1, 1978 | March 1, 1979 |

| Appendix Task | Schedule Date to Begin Training or Preparing to Accept Delegation | Schedule Date to Assume Full Responsibility (Training Ends) |
|---|---|---|
| M. Step 2 Applications | July 1, 1978 | December 15, 1978 |
| N. Architectural/Engineering Subagreements | July 1, 1978 | December 15, 1978 |
| O. Force Account Services | July 1, 1978 | December 15, 1978 |
| P. Facility Plan Approval | November 1, 1978 | March 1, 1979 |
| Q. User Charge, Cost Recovery, Sewer Use | November 1, 1978 | March 1, 1979 |
| R. Bid Review | November 1, 1978 | March 1, 1979 |
| S. Preparation of Grant Agreements and Correspondence | September 1, 1979 | January 1, 1980 |
| T. Biddability and Constructability Reviews of Plans and Specifications | July 1, 1980 | October 1, 1980 |
| U. Interim Inspections | July 1, 1980 | October 1, 1980 |

III. Funding

Costs associated with the conduct of the delegated activity and the costs associated with preparation to assume a delegated activity in accordance with the above schedule are eligible under the CMA grant.

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SUMMARY STATUS OF ADVANCED TREATMENT PROJECTS
SUBMITTED TO HEADQUARTERS FOR REVIEW

October 26, 1979

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| Project Name (Step)[1] | Classification | Costs[2] ($millions) | Review Schedule Dates[3] Begin | Completed |
|---|---|---|---|---|
| **I. Completed Review** | | Total/Inc./Sav. | Begin | Completed |
| Rochester, MN (2) | AST | 36.7/10.0/0 | | 12/21/78 |
| Walworth Co., WI (2) | AST | 20.0/4.0/0 | | 2/12/79 |
| Atlanta, GA (2) | compl AST | 208/32/0 | 2/20 | 6/22/79 |
| Brockton, MA (2) | AWT | 16.9/9.7/0 | 2/22 | 6/22/79 |
| Leominister, MA (2) | AWT | 19.3/2.76/1.5 | 2/27 | 6/28/79 |
| Sioux Falls, SD (1) | AST | 49.1/9.4/0 | 4/27 | 6/29/79 |
| Philadelphia (NE), PA (1) | AST | 254.4/6.6/0 | 5/29 | 6/29/79 |
| Philadelphia (SE), PA (1) | AST | 122.2/12.2/0 | 5/29 | 6/29/79 |
| Boulder, CO (1) | AWT | 34.8/11.5/0 | 6/11 | 9/20/79 |
| Lee Co.-Ft. Myers, FL (2) | AWT | 48.1/25.3/2.5 | 2/22 | 9/20/79 |
| Bozeman, MT (1) | AST | 9.0/4.1/0 | 7/20 | 9/20/79 |
| Meriden, CT (2) | compl AST | 28.8/5.3/0 | 4/11 | 9/21/79 |
| Portage, IN (1) | AWT | 7.5/2.7/3.3 | 4/16 | 9/28/79 |
| Albert Lea, MN (2) | AWT | 19.3/3.4/0 | 5/18 | 9/28/79 |
| Baltimore, MD (2) | compl AST | 3.6/3.6/0 | 6/12 | 9/21/79 |
| Cranston, RI (2) | AST | 57.7/6.8/0 | 7/10 | ^/28/79 |
| Oneida, NY (2) | AST | 9.5/2.8/.6 | 8/08 | 9/28/79 |
| Beckley, WV (1) | AST | 8.28/3.95/3.^5 | 6/26 | ^/2^/79 |
| Anson Co., NC (2) | AST | 9.41/1.94/0 | 7/30 | 9/28/79 |
| Greensboro, NC (2) | AWT | 7.4/1.5/0 | 8/01 | 9/28/79 |
| Lexington, KY (2) | AST | 49.9/17.4/0 | 8/15 | 9/28/79 |
| Richmond, IN (2) | AST | 15.3/6.9/3.4 | ^/15 | ^/2^/79 |
| Bowling Green, OH (2) | AST | 17.7/1.6/0 | 6/28 | 9/28/79 |
| Sanford, ME (2) | AWT | 9.5/3.6/0 | 6/11 | 9/28/79 |
| Sod Run, MD (2) | AST | 21.2/3.0/2.4 | 7/03 | 9/28/79 |
| London, KY (2) | AST | 6.6/2.1/.475 | 8/01 | 9/2^/79 |
| Waupun, WI (1) | AST | 5.2/1.9/2.0 | 3/19 | 10/01/79 |
| Rochester, NH (2) | compl AST | 7.6/2.3/1.3 | 3/08 | 10/01/79 |
| Valparaiso, IN (1) | AWT | 10.0/2.69/.617 | 4/23 | 10/01/79 |
| Newton/Covington, GA (1) | AST | 4.8/3.2/2.5 | 9/22 | 10/12/79 |
| Milford, MA (2) | AWT | 10.2/2.5/0 | 7/10 | 10/15/79 |
| High Point, NC (2) | AST | 19.3/2.3/0 | 7/03 | 10/25/79 |
| Burlington, NC (2) | AST | ^.9/7.0/0 | 7/25 | 10/25/79 |
| **II. Exempted HQ Review** | | Total/Inc. | Submitted | Returned |
| St. Petersburg, FL (2) | AWT | 27.7/11.9 | 2/16 | 3/21/79 |

| III. Returned to Region | | Total/Inc. | Submitted | Returned |
|---|---|---|---|---|
| Milan, MI | AST | 6.0/1.6 | 2/13 | 6/26/79 |
| N. Ft. Myers & Cape Coral, FL (2) | AWT | 10.5/4.8 | 2/07 | 6/26/79 |
| Fergus Falls, MN (2) | AST | 4.5/1.1 | 7/03 | 7/30/79 |
| Carrollton, GA (1) | AST | 5.3/1.5 | 7/19 | 10/18/79 |
| Whitewater, WI (2) | AST | 20.8/2.1 | 8/10 | 10/18/79 |
| Hinesville, GA (1) | AST | 7.3/2.3 | 9/21 | 10/18/79 |

| IV. Awaiting Final Action | | Total/Inc. | Begin | Compl. | Revised |
|---|---|---|---|---|---|
| Manasquan, NJ (1) | AWT | 33.4/1.2 | 4/10 | 5/15 | 10/15/79 |
| Kalamazoo, MI (2) | AWT | 83/8 | 7/25 | 9/05 | 10/17/79 |
| Fort Wayne, IN (2) | AST | 15.2/15.2 | 8/08 | 9/15 | 10/15/79 |
| Boardman, OH (1) | AWT | 7.7/3.4 | 5/29 | 8/21 | 10/15/79 |
| San Antonio, TX (1) | AWT | 253.1/70.8 | 8/01 | 9/15 | 10/15/79 |
| Alliance, OH (1) | AWT | 11.9/6.1 | 6/15 | 9/1[illegible] | 10/15/79 |
| Rockaway Valley, NJ (1) | AWT | 38.6/8.8 | 7/03 | 9/14 | 10/15/79 |
| Galesburg, IL (2) | AST | 30.9/9.5 | 5/29 | 8/0[illegible] | 10/15/79 |
| Columbus, OH (1) | compl AST | 112.4/38.8 | 6/01 | 7/27 | 10/15/79 |
| Miami Co., OH (1) | AST | 12.4/1.4 | 6/26 | 8/07 | 10/15/79 |
| Marion, IN (2) | AST | 13.4/5.5 | 7/18 | 8/28 | 10/15/79 |
| Chapel Hill, NC (2) | AST | 4.9/1.2 | 7/23 | 9/05 | 10/15/79 |
| Kent, OH (2) | AST | 6.1/3.0 | 8/08 | 9/15 | 10/15/79 |
| Summit Co., OH (1) | AST | 9.8/2.3 | 8/08 | 9/15 | 10/15/79 |
| Montgomery Co., OH (1) | AST | 30.3/3.6 | [illegible]/24 | [illegible]/15 | 10/15/79 |
| Dayton, OH (1) | AST | 82.0/38.5 | 8/24 | 9/15 | 10/15/79 |
| Chesapeake Bay, MD | compl AST | N/A/10.2 | 6/04 | | |

| V. Draft Reports in Regional Review | | Total/Inc. | Begin | Compl. | Revised |
|---|---|---|---|---|---|
| Corona, CA (2) | AST | 13.2/3.[illegible] | [illegible]/02 | [illegible]/13 | |
| LASCD, CA (San Jose) (2) | AST | 1[illegible].0/2.5 | 8/13 | 9/24 | |
| LASCD, CA (Long Beach) (2) | AST | 7.5/1.6 | [illegible]/13 | 9/24 | |
| Las Virgenes, CA (2) | AST | /1.4 | 8/07 | 9/20 | |

| VI. Recommendations in Draft | | Total/Inc. | Begin | Compl. | Revised |
|---|---|---|---|---|---|
| Gwinnett Co., GA (2) | compl AST | 9/1.6 | 7/20 | 8/30 | 10/30/79 |
| Battle Creek, MI (2) | AST | 42/5.4 | 8/24 | 9/15 | 11/01/79 |
| West Chicago, IL (1) | AST | 11.5/2.7 | 7/03 | 8/14 | 11/15/79 |
| Woodridge, IL (2) | AST | 21.3/2.7 | 7/09 | 9/15 | 11/01/79 |

| VII. Under Review | | Total/Inc. | Begin | Compl. | Revised |
|---|---|---|---|---|---|
| Asheboro, NC (1) | AWT | 7/2.6 | 7/23 | 9/05 | 11/15/79 |
| Cobb Co., GA (2) | AST | 15.7/1.7 | 8/02 | 9/13 | 11/15/79 |

| VIII. In Preliminary Screening | | Total/Inc. | Submitted |
|---|---|---|---|
| Macon, GA (1) | AST | 21.1/5.5 | 7/19 |
| Gardner, MA (1) | AST | 6.1/3.9 | 8/08 |
| Beaver Dam, WI (1) | AST | 14.0/5.5 | 8/17 |
| LA (Sepulveda), CA (1) | AST | 69.2/3.8 | 10/17 |

| IX. Deferred Pending Additional Info | Total/Inc. | Submitted |
|---|---|---|

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[1](Step) - latest 201 grant step in progress or completed but not approved.

[2]Costs Defined:

Total = total capital costs of the treatment facility (Step 3) - Not present worth.
Inc. = incremental capital costs for advanced treatment above secondary.
Sav. = cost savings which result from AT Task Force recommendations.

[3]Dates Defined:

Begin = date of acceptance letter.
Submitted = date which documents were received.
Compl. = date allocated for review completion according to PRM 79-7 (AST - 30 days, comp. AST, NWT - 60 days).
Revised = revision of original completion date due to review complications.
Completed = actual date of Administrator's signature.
Returned = actual date of Headquarters' official confirmation letter.

| Region and jurisdiction covered | Address |
|---|---|
| I—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. | JFK Federal Building, Boston, Mass. 02203. |
| II—New York, New Jersey, Puerto Rico, Virgin Islands. | Federal Office Building, 26 Federal Plaza, New York, N.Y. 10007. |
| III—Delaware, District of Columbia, Pennsylvania, Maryland, Virginia, West Virginia. | Curtis Building, 6th and Walnut Sts., Philadelphia, Pa. 19106. |
| IV—Alabama, Florida, Georgia, Mississippi, Kentucky, North Carolina, South Carolina, Tennessee. | 345 Courtland NE., Atlanta, Ga. 30308. |
| V—Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin. | Federal Building, 230 South Dearborn St., Chicago, Ill. 60604. |
| VI—Arkansas, Louisiana, New Mexico, Oklahoma, Texas. | 1st International Building, 1201 Elm St., Dallas, Tex. 75270. |
| VII—Iowa, Kansas, Missouri, Nebraska. | 1735 Baltimore St., Kansas City, Mo. 64108. |
| VIII—Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming. | 916 Lincoln Towers, 1860 Lincoln St., Denver, Colo. 80203. |
| IX—Arizona, California, Hawaii, Nevada, Guam, American Samoa. | 215 Fremont St., San Francisco, Calif. 94105. |
| X—Washington, Oregon, Idaho, Alaska. | 1200 6th Ave., Seattle, Wash. 98101. |

**§ 62.11 Severability.**

The provisions promulgated in this part and the various applications thereof are distinct and severable. If any provision of this part or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or application of such provision to other persons or circumstances which can be given effect without the invalid provision or application.

**§ 62.12 Availability of applicable plans.**

Copies of the applicable plans will be available for public inspection at the following locations:

(a) The offices of the Directors, Air and Hazardous Materials Divisions at EPA Regional Offices I, III-X, and the Director, Environmental Programs Division at EPA Regional Office II. The addresses and jurisdictions covered by these appear in § 62.10.

(b) Public Information Reference Unit, Library Systems Branch, EPA (PM 213), 401 M Street SW., Washington, D.C. 20460.

**Subparts B-O [Reserved]**

**Subpart P—Indiana**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.3600 Identification of plan—Negative declaration.**

The State Board of Health submitted on April 18, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subparts Q-W [Reserved]**

**Subpart X—Michigan**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.5600 Identification of plan—Negative declaration.**

The State Department of Resources submitted on April 18, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subpart Y—Minnesota**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.5800 Identification of plan—Negative declaration.**

The State Pollution Control Agency submitted on April 7, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subparts Z-FF [Reserved]**

**Subpart GG—New Mexico**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.7800 Identification of plan—Negative declaration.**

The State Department of Health and Social Services submitted on October 31, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subparts HH-KK [Reserved]**

**Subpart LL—Oklahoma**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.9100 Identification of plan—Negative declaration.**

The State Department of Health submitted on October 25, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subparts MM-XX [Reserved]**

**Subpart YY—Wisconsin**

**FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER PLANTS**

**§ 62.12350 Identification of plan—Negative declaration.**

The State Department of Natural Resources submitted on May 24, 1977, a letter certifying that there are no existing phosphate fertilizer plants in the State subject to Part 60, Subpart B of this Chapter.

**Subparts ZZ-DDD [Reserved]**

[FR Doc. 78-18814 Filed 7-7-78; 8:45 am]

[6560-01]

[40 CFR Part 130]

[FRL 905-8]

**WATER QUALITY STANDARDS**

AGENCY: Environmental Protection Agency.

ACTION: Statement of current Policy and advance notice of proposed rulemaking.

SUMMARY: Water quality standards may form the basis for enforceable requirements under the Clean Water Act. In the notice below, EPA summarizes its current policy for the development of water quality standards and its preliminary thoughts for a revised approach. EPA's contemplated approach would result in (a) more stringent water quality standards than currently exist in many States, and in (b) water quality standards for many pollutants which are not subject to existing State standards. EPA is contemplating a revised approach in order to assure achievement of the Clean Water Act's goals and to comply with a court order. EPA will consider written comments on its contemplated approach before formulating proposed regulations.

DATES: Written public comments should be submitted to the person listed immediately below by September 8, 1978.

FOR FURTHER INFORMATION CONTACT: Kenneth M. Mackenthun, Director, Criteria and Standards Division (WH-585), Office of Water Planning and Standards, U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, telephone 202-755-0100.

I. BACKGROUND

Water quality standards play an important role in the basic scheme of the Clean Water Act, 33 U.S.C. 1251 et seq. Under section 301(b)(1)(C) of the act, water quality standards may dictate the enforceable discharge limitation for an industrial or municipal polluter. Water quality standards may also form the basis for the areawide planning requirements under section 208. Water quality standards may thus be translated into enforceable requirements not only for "point" sources such as industrial and municipal dischargers, but also for "nonpoint" sources such as agricultural, silvicultural, and construction activities.

Congress has directed in section 101(a)(2) that by July 1, 1983, water

quality providing for "the protection and propagation of fish, shellfish, and wildlife" and "recreation in and on the water" be achieved "wherever attainable." Section 303(c)(2) requires that water quality standards "protect the public health or welfare, enhance the quality of water and serve the purposes of this act." The discussion which follows concerns EPA's efforts to define more precisely these congressional objectives. It describes the general nature of a water quality standard, the basic statutory framework for developing water quality standards, EPA's current regulations and policy, and EPA's preliminary thoughts on a revised approach. As explained in Part V below, EPA is contemplating a revised approach in order to implement more fully the congressional water quality goals and to comply with the court's order in *Natural Resources Defense Council, et al. v. Train*, 8 ERC 2120 (D.D.C. 1976).

## II. General Nature of a Water Quality Standard

A water quality standard for a particular water body (or segment) will generally consist of two elements: (a) a designated "use" (such as public water supply, recreation, agriculture, etc.); and (b) "criteria" for various pollutants, expressed in numerical concentration limits,[1] sufficient to support the designated use.

A numerical concentration limit is in effect an ambient standard; it sets a maximum pollutant concentration level which is not to be exceeded in a particular water body. An example of a water quality standard under the act might be: in the A river, which is designated for fishing and swimming [use], there shall be no more than X micrograms of lead per liter of water [criterion]; in the B river, which is designated for agricultural purposes [use], there shall be no more than Y micrograms of lead per liter of water [criterion].

## III. Basic Statutory Framework for Developing Standards

### A. State-Federal Procedures

Section 303 sets the procedural framework for the development of water quality standards. Sections 303(a) and (b) concern the transition from the 1948 Water Quality Act to the 1972 act. Section 303(c) contains the provisions which are of current importance. This section creates an ongoing process for the establishment and modification of water quality standards which serve the present act's purposes.

Under section 303(c) (1) and (2), each State is to review its existing water quality standards at least every 3 years, revise them where appropriate, and submit such revisions to EPA for approval. EPA must review the revised standards to determine whether they protect the public health or welfare, enhance the quality of the water, and serve the purposes of the act. If EPA determines that the revised standards "meet the requirements" of the act, EPA approves the standards. EPA must propose and promulgate its own standards under section 303(c)(4)(A) where it finds State revisions inadequate.

Finally, EPA is authorized not only to react to these revisions submitted by States, but also to take affirmative action to issue Federal standards. Under section 303(c)(4)(B), EPA may propose and promulgate Federal standards "in any case" where a revised "or new" standard is necessary to meet the requirements of the act.

### B. "Criteria" Information Under Section 304(a)

While Congress established a joint State-EPA procedure in section 303 for the establishment and revision of water quality standards,[2] Congress charged EPA with developing the information upon which the standards are based. Under section 304(a), EPA is to publish and periodically update national water quality "criteria" for various water pollutants. The section 304(a) criteria are to reflect the latest scientific knowledge on the identifiable effects of each pollutant on public health and welfare, aquatic life, and recreation.

Such pollutant-specific criteria are to be "issued to the States" (sec. 304(a)(3)) for use in developing their standards under section 303. For example EPA's section 304(a) criteria information might conclude that based upon scientific studies, X micrograms/liter concentration of a certain pollutant is a safe level for domestic water supply; Y micrograms/liter is safe for freshwater fish; and Z micrograms/liter is safe for marine fish. A State could then apply these numerical concentration limits to its various types of waters in establishing its water quality standards.

[1] This discussion is general for purposes of illustration and is not intended to be a comprehensive discourse on all the fine points of EPA's water quality standard policies. A complete discussion may be found in the documents referenced in Pt. IV.A of this notice.

For instance, water quality standards may not always specify "numerical concentration limits." EPA has accepted narrative standards for some pollutants in the past, but as discussed in Pt. IV.C.1 below, EPA's policy is increasingly to require numerical limits. Moreover, there may be more than a single use designated for some waters. EPA's policy has been to encourage multiple use designations for various water bodies.

[2] Except for the direct Federal promulgation procedure authorized by sec. 303(c)(4)(B).

## IV. EPA's Current Regulations and Policies

### A. Relevant Documents

The basic regulations for developing water quality standards are published at 40 CFR 130.17, 40 FR 55340-41, November 28, 1975. These regulations have been explained in Chapter 5 of EPA's "Guidelines for State and Areawide Water Quality Management Program Development" November 1976. EPA announced the availability of these guidelines and solicited public comment on them on November 8, 1976 (41 FR 48777).

An important aspect of EPA's policy has been re-emphasized in an EPA memorandum of January 16, 1979 (published as App. A to this notice). These three documents shall hereinafter be referred to as the "Regulations," the "Chapter 5 Guidelines," and the "January 16 Memorandum."

### B. Uses and Use Designations

1. *General.* As noted earlier, one basic component of a water quality standard is the use designation for a particular body of water. A designated use could be one for which high quality water is necessary (such as drinking supply or swimming) or for which low quality water will suffice (such as industrial water supply). EPA's policy with respect to uses and use designations is based upon the congressional goal (sec. 101(a)(2)) that water quality protective of aquatic life and recreation be achieved by July 1, 1983, wherever attainable. Accordingly, EPA's policy is that through the water quality standard revision process, States should consider "fishable, swimmable"[1] use designations as the norm. Less stringent designations are allowed only in carefully limited circumstances.

2. *Maintenance of existing uses.* Wherever a use is currently[2] being attained in a particular water body, the State may not under any circumstances change the water body's use designation to a less stringent use. Regulation § 130.17(c)(3); Chapter 5 Guidelines § 5.3(B). Thus, if the X river has fishable, swimmable water quality, the State cannot designate any portion of it solely for an industrial water supply use.[3] There are no exceptions to this rule.

3. *"Downgrading."* The only time a redesignation to a less stringent use is even a possibility is when a particular

[1] This shorthand term is commonly used to describe the sec. 101(a)(2) goal and will be used throughout this notice for convenience.

[2] As of the date of the issuance of the regulations (Nov. 28, 1975) or any later time.

[3] Assuming that for the relevant pollutants, an industrial water supply designation would in fact require less stringent criteria than a fishable, swimmable designation.

water body is designated for a more stringent use than is currently being attained. For instance, a segment of the X river might be designated as fishable, swimmable, but the actual water quality is that segment might only be sufficient to support an industrial water supply use. A State may "downgrade" the designated use classification in such a situation, but only if the State can demonstrate that the designated use is "unattainable" because:

(a) Of natural background;

(b) Of irretrievable person-induced conditions; or

(c) Existing "point" sources would have to be controlled beyond the most stringent effluent limitation levels normally required for such sources under the act [6] (even assuming implementation of "best management practices" for nonpoint sources), and imposition of such extra controls would result in "substantial and widespread adverse economic and social impact." Regulations § 130.17(c)(3); Chapter 5 Guidelines § 5.2(C)(2).

4. *"Upgrading."* While EPA discourages and prohibits various types of downgradings, EPA encourages and requires some types of "upgradings."

(a) *Where current water quality is better than designated use.*—If a water body currently has better water quality than reflected in its designated use, the State must "upgrade" the designated use to reflect the better use which is currently being attained. Regulations § 130.17(c)(2); Chapter 5 Guidelines § 5.2(C)(1)(a).

(b) *Where current water quality is less than fishable, swimmable.*—The State must designate all of its waters for fishable, swimmable use "wherever attainable." Regulations § 130.17(c)(1); Chapter 5 Guidelines § 5.2(C)(1). EPA requires that where a water body currently has a lower water quality than fishable, swimmable, the State must upgrade that water body to fishable, swimmable where:

Water quality improvement can be anticipated through application of the most stringent effluent limitation levels normally required for point sources under the act; or

Existing designated uses fail to protect the uses currently designated (or to be achieved) in downstream waters. Chapter 5 Guidelines § 5.2(C)(1) (b)-(e).

C. CRITERIA

1. *General.* EPA's regulations require that the States specify criteria in their water quality standards which are sufficient to support the designated use for each body of water. Regulations § 130.17(b)(3). As required by section 304(a) of the act (described in Pt. III.B above), EPA has issued and revised pollutant-by-pollutant water quality criteria for the States' use. The most recent revision is the "Quality Criteria for Water" issued in July 1976.[7] This document is commonly known as the "Red Book."

The Red Book contains criteria for 48 specific pollutants, plus guidance on related matters such as esthetic qualities, color, hardness, and mixing zones. For most pollutants, specific numerical concentration limitations are set forth. For some pollutants, a formula is stated by which one may derive specific numerical concentration limits. EPA's policy is that water quality standards should be expressed in terms of numerical concentration limits wherever possible. Chapter 5 Guidelines § 5.3.

2. *State adoption of numerical criteria less stringent than Red Book criteria.* The numerical limits in the Red Book are derived on a national scale and generally do not take into account the variability of waters from State-to-State. EPA therefore does not require that States automatically adopt the Red Book numbers for all of their waters.

Nevertheless, EPA feels that the data base for the Red Book numbers is sufficiently broad for the numbers to have presumptive applicability. EPA's policy is that a State may adopt a numerical concentration level for a Red Book pollutant which is less stringent than the Red Book number, but only if a State provides adequate technical justification for the deviation. Chapter 5 Guidelines, § 5.3(A); January 16 Memorandum (App. A to this notice).

Where a State does not provide adequate technical justification for a deviation, EPA will disapprove that portion of the State's water quality standard under section 303(c)(3) and propose the appropriate Red Book number for public comment under section 303(c)(4). (See Pt. III.A above.) EPA will then take into consideration all public comments, including comments directed toward the propriety of the Red Book number for specific waters of the State, before developing and promulgating a final water quality standard. January 16 Memorandum.

3. *State failure to adopt a criterion for a Red Book pollutant.* As noted in part III.A above, EPA may promulgate Federal water quality standards under section 303(c)(4)(B) whenever a revised "or new" standard is necessary to meet the requirements of the act. In practice, however, EPA has generally not undertaken proposal and promulgation of a Federal standard for a pollutant which a State has failed to address entirely. See January 16 Memorandum.

For example, assume the Red Book number for the pollutant mercury is .1 micrograms per liter, that State A adopts a standard of .2, and that State B adopts no standard for mercury. Under EPA's general practice, EPA would: (1) disapprove State A's standard and promulgate a .1 standard, unless EPA were convinced by a technical justification that something less stringent would suffice in State A's waters; and (2) take no action with respect to State B.[8]

4. *Antidegradation.* EPA's antidegradation policy is articulated fully at Regulations § 130.17(e) (particularly the preamble at 40 FR 55336) and at Chapter 5 Guidelines § 5.4. It will not be discussed further here because EPA is not contemplating any changes to it.

V. PRELIMINARY THOUGHTS ON A REVISED APPROACH

A. NRDC CONSENT DECREE

On June 8, 1976, the U.S. District Court for the District of Columbia entered an order which requires EPA to undertake a broad and comprehensive new approach to the regulation of toxic pollutants under the Clean Water Act. *Natural Resources Defense Council, et al., v. Train*, 8 ERC 2120 (D.D.C. 1976). This order shall hereafter be referred to as the "consent decree."

Two pargraphs (pars. 11, 12) of the consent decree relate directly to water quality criteria and standards. Paragraph 11 requires EPA to publish national criteria under section 304(a) for 65 families of organic and inorganic toxic compounds. The list of "65 toxics" is published at the end of this notice as Appendix B.

The new section 304(a) criteria are to state, for each of the 65 toxics, "the recommended maximum permissible concentrations (including where appropriate zero) consistent with the protection of aquatic organisms, human health, and recreational activities." 8 ERC 2127. Most of the 65 toxics are not covered in the current Red Book. Currently, EPA plans to propose the 65 toxics section 304(a) criteria for public comment in August of this year. A notice soliciting written public comments will appear in the FEDERAL REGISTER.

Paragraph 12 provides that EPA must "establish a specific and substantial program" to assure that discharges of the 65 toxics will not "interfere with the attainment or maintenance of that water quality in a specif-

[6] For instance, "best available technology (BAT)" or "best conventional technology (BCT)" for industrial sources; "best practicable waste treatment technology (BPWTT)" for municipal sewage treatment works.

[7] Notice of this document's availability appeared at 41 FR 33947, Aug. 6, 1976.

[8] This does not mean that EPA would approve a State's revocation of an approved standard for a pollutant.

is portion of the navigable waters which shall assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water." 8 ERC 2127-36. The following discussion sets forth EPA's preliminary thinking on how the section 130.17 Regulations may be amended to carry out the requirements of Paragraphs 11 and 12 and to implement more fully the basic water quality goals of the act.

B. THEN AND THE RECOMMENDATIONS

EPA is considering amending section 130.17(c) to strengthen EPA's current policy of discouraging downgrading and encouraging upgrading. Section 101(a)(2) of the act, along with Paragraphs 11 and 12 of the consent decree, may require a firmer approach than EPA has taken in the past.

EPA is considering tightening the "social-economic" portion of the downgrading test (section 130.17(c)(3)(iii), Part IV.B.3 above) to require the State to show two additional factors: (a) that nonpoint sources have been controlled to the maximum extent feasible; and (b) that the economic and social costs of the additional point source and nonpoint source controls necessary to attain the currently designated use would bear no reasonable relationship to the resulting benefits.

EPA may also strengthen the upgrading policy articulated in Part IV.B.4 above to provide that all waters of all States must be upgraded to at least a fishable, swimmable use designation except where a State can make, on a case-by-case basis, the same showing necessary to justify a downgrading.

C. CRITERIA

The Clean Water Act and Paragraphs 11 and 12 might require a more aggressive program for translating national section 304(a) criteria into section 303 water quality standards. EPA is considering an approach which would make much greater use of its authority under section 303(c)(4)(B), and would reverse EPA's general practice (explained in P. IV.C.3 above) of not promulgating a water quality standard for a pollutant which a State fails to regulate.

EPA is considering amending section 130.17 to provide a list of pollutants for which water quality standards must be developed. The list might contain some (or all) of the present Red Book pollutants and some (or all) of the 65 toxic pollutants.

New section 130.17 might provide that within a specified period of time after such a list is promulgated, States would be required to submit revised water quality standards for each pollutant on the list. Where a State failed to adopt a standard for a pollutant on the list, EPA would then propose and promulgate an appropriate water quality standard. Where a State adopted a standard, but chose a less stringent concentration limit than contained in EPA's section 304(a) criteria, EPA would (absent adequate technical justification relating to the particular waters involved) propose and promulgate an appropriate water quality standard.

Alternatively, EPA might propose and promulgate standards under section 303(c)(4)(B) without waiting for the State to act. This approach might be particularly appropriate for pollutants which are especially dangerous, in that the standards could become effective much more quickly.

It should be obvious that the development of the new section 304(a) criteria for the 65 toxic pollutants pursuant to paragraph 11 of the consent decree could have highly significant consequences for enterprises and activities which may be regulated under the Clean Water Act. EPA therefore strongly encourages all interested persons to participate fully in the public comment process (noted in Pt. V.A. above) which will lead to the development of these criteria.

D. CONSIDERATION OF STREAMFLOW AND ALLOCATION OF WATER QUANTITIES

Some water resource management practices (such as stream diversion for agricultural purposes) not only affect water quantity in a stream segment but also affect the water quality in the same segment. These practices may in some cases be inconsistent with the congressional goal of fishable, swimmable water wherever attainable.

EPA may therefore develop a policy to urge States to prohibit alteration or restriction of natural flows that would interfere with fishable, swimmable water quality. EPA does not at this time intend, however, for its policy to result in Federal promulgation of specific streamflow and quantity requirements in the event a State fails to take appropriate action. Whatever policy EPA develops will be consistent with new section 101(g) of the act, which recognizes each State's authority to allocate water quantities within its jurisdiction.

VI. SPECIFIC ISSUES FOR COMMENTS TO ANSWER

Written public comments are invited on all issues raised in this notice as well as any other issues concerning paragraphs 11 and 12 of the consent decree and the development of water quality standards under the act. Comments should be sent to Kenneth M. Mackenthun at the address noted in the introduction to this notice no later than September 6, 1978.

EPA is especially interested in soliciting public comments on the following issues:

A. (1) If EPA publishes a list of section 304(a) criteria pollutants for which water quality standards must be developed (Pt. V.C. above), should all Red Book and 65 toxic pollutants be included? (2) If not, what factors should EPA consider in determining the pollutants to be included? (3) Should completeness of data base be a factor? (4) Should the degree of a pollutant's persistence, toxicity, or potential for carcinogenicity be a factor? (5) Should EPA distinguish between pollutants which harm aquatic life and those which harm humans? (6) How much time should States be given to develop new water quality standards in response to the new lists? (7) Should EPA directly propose and promulgate any of all of the section 304(a) criteria pollutants without waiting for State action?

B. (1) Should EPA's policy (Pt. IV.C.3. above) of disapproving State standards which contain concentration limits less stringent than EPA's section 304(a) criteria (absent adequate technical justification) be further refined and/or explained in regulations? (2) Should this policy be continued with respect to the upcoming criteria for the 65 toxic pollutants? (3) What fundamentally different factors relating to specific waters of a State might provide rational grounds for justifying a deviation from the national criteria in section 304(a)? (4) How much "proof" should EPA demand before allowing a deviation?

C. (1) Should EPA's policy of discouraging downgradings and encouraging upgradings (Pt. IV.B. above) be further refined and/or explained in regulations? (2) Should EPA add the condition that the costs of attaining fishable, swimmable waters would bear "no reasonable relationship" to the resulting benefits (Pt. V.B above)? (3) If so, should more explicit guidance be provided?

D. (1) Should EPA encourage State adoption of stream flow and quantity allocation prohibitions (Pt. V.D. above)? (2) How can EPA do so within the confines of new section 101(g) of the act?

EPA will carefully consider all timely public comments before developing a notice of proposed rulemaking on amendments to 40 CFR 130.17. Again, parties interested in today's notice are strongly encouraged to review and comment upon the upcoming proposal for the 65 toxic criteria under section 304(a).

Dated: June 28, 1978.

BARBARA BLUM,
*Acting Administrator.*

APPENDIX A

U.S. ENVIRONMENTAL PROTECTION AGENCY

Date: January 12, 1976.

Subject: Guidance on the Use of Criteria Contained in "Quality Criteria for Water" during the Review of State Water Quality Standards Revisions.

From: Kenneth M. Mackenthun, Director, Criteria and Standards Division (WH-585).

To: Water Division Directors, Environmental Protection Agency.

*Problems addressed*

During discussions with Regional water quality standards coordinators, two issues were raised: (1) the use of the Agency's "Quality Criteria for Water" in water quality standards and (2) the nature of the criteria to be promulgated when a State water quality standard is disapproved.

*Guidance*

Section 303 of Pub. L. 92-500 and 40 CFR 130.17 require that a State designate water uses in its Water Quality Standards and the criteria to support these uses. When a State adopts criteria which are less stringent for pollutants than those published by the Agency in "Quality Criteria for Water" or a subsequent revision of same, a State should justify the less restrictive criteria. Failure to do so may be grounds for Federal promulgation.

Some unpolluted waters in the Nation may exceed designated criteria for particular constituents. There is variability in the natural quality of water and certain organisms become adapted to that quality, which may be considered extreme in other areas. Thus for these particular waters EPA can accept less stringent numerical criteria than those in "Quality Criteria for Water" when a State can justify such action because of natural background water quality. If such justification is insufficient then the numerical criteria should not be approved. Criteria for man-made or man-induced pollutants must be compatible with those found in the "Quality Criteria for Water." Otherwise the State should be requested either to adopt more stringent criteria or satisfactorily justify a less restrictive beneficial use. When this request is not satisfied, Federal promulgation of the State water quality standard should occur.

Where a Federal promulgation of a State water quality standard is required, the appropriate numerical criteria contained in "Quality Criteria for Water" will be proposed. EPA water quality criteria for particular constituents will be proposed only when a State's adopted criteria are less stringent than the EPA water quality criteria. EPA will not add toxic and other water constituent criteria in such rulemaking under the current 40 CFR 130.17.

*Rationale*

Water quality criteria in "Quality Criteria for Water" have evolved over an extended time period beginning with the passage of the 1972 Amendments to the Federal Water Pollution Control Act. EPA's publication of water quality criteria will be modified and revised in the future, and the evolution of water quality criteria will continue as the state-of-the-art knowledge becomes enhanced. These are the Agency's criteria for levels of constituents in water that will protect aquatic life and human uses of water.

Obviously case-by-case justifications based on natural background levels may be made for specific waters for a constituent that is more lax than specified in "Quality Criteria for Water." The Agency will give thoughtful consideration to all comments received within the public comment period in preparing final rulemaking.

*Addresses*

Marvin Byrd, Bud Brown, Bob Schaffer, Lester Sutton, Region I, Conrad Simon, Region II, Orvene Jones, Region III, Joseph Franzmathes, Region IV, Charles Berlin, Region V, Richard Dutz, Region VI, Carl Bangren, Region VII, Charles Murray, Region VIII, Sheila Prindiville, Region IX, and Robert Byrd, Region X.

APPENDIX D

(6) TOXIC POLLUTANTS

1. Acenaphthene.
2. Acrolein.
3. Acrylonitrile.
4. Aldrin/Dieldrin.
5. Antimony and compounds.[1]
6. Arsenic and compounds.
7. Asbestos.
8. Benzene.
9. Benzidine.
10. Beryllium and compounds.
11. Cadmium and compounds.
12. Carbon tetrachloride.
13. Chlordane.
14. Chlorinated benzenes.
15. Chlorinated ethanes.
16. Chloroalkyl ethers.
17. Chlorinated naphthalene.
18. Chlorinated phenols.
19. Chloroform.
20. 2-chlorophenol.
21. Chromium, and compounds.
22. Copper and compounds.
23. Cyanides.
24. DDT and metabolites.
25. Dichlorobenzenes.
26. Dichlorobenzidine.
27. Dichloroethylenes.
28. 2,4-dichlorophenol.
29. Dichloropropene and dichloropropane.
30. 2,4-dimethylphenol.
31. Dinitrotoluene.
32. Diphenylhydrazine.
33. Endosulfan and metabolites.
34. Endrin and metabolites.
35. Ethylbenzene.
36. Fluoranthene.
37. Haloethers.
38. Halomethanes.
39. Heptachlor and metabolites.
40. Hexachlorobutadiene.
41. Hexachlorocyclohexane.
42. Hexachlorocyclopentadiene.
43. Isophorone.
44. Lead and compounds.
45. Mercury compounds.
46. Naphthalene.
47. Nickel and compounds.
48. Nitrobenzene.
49. Nitrophenols.
50. Nitrosamines.
51. Pentachlorophenol.
52. Phenol.
53. Phthalate esters.
54. Polychlorinated biphenyls.
55. Polynuclear aromatic hydrocarbons.
56. Selenium and compounds.
57. Silver and compounds.
58. 2,3,7,8-Tetrachlorodibenzo-p-dioxin.
59. Tetrachloroethylene.
60. Thallium and compounds.
61. Toluene.
62. Toxaphene.
63. Trichloroethylene.
64. Vinyl chloride.
65. Zinc and compounds.

(FR Doc. 79-18813 Filed 7-7-79; 8:45 am)

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[6712-01]

## FEDERAL COMMUNICATIONS COMMISSION

[47 CFR Part 73]

[BC Docket No. 79-183; RM-3043]

### FM BROADCAST STATIONS

Proposed changes in Table of Assignments, Poplar Bluff and Thayer, Mo.

AGENCY: Federal Communications Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: Action taken herein proposes the assignment of a third FM assignment to Poplar Bluff, Mo., and the substitution of a Class A channel for another in Thayer, Mo. Petitioner, Raymond McCullough, states the proposed additional FM channel in Poplar Bluff could be used to provide a much needed additional FM programing service in that community.

DATES: Comments must be filed on or before August 25, 1979, reply comments must be filed on or before September 14, 1979.

ADDRESS: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT:

Mildred B. Neubrak, Broadcast Bureau, 202-632-7792.

SUPPLEMENTARY INFORMATION:

In the matter of amendment of § 73.202(b), Table of Assignments, FM Broadcast Stations. (Poplar Bluff and Thayer, Mo.); Notice of proposed rulemaking.

Adopted: June 28, 1979.

Released: July 6, 1979.

By the Chief, Broadcast Bureau:

1. *Petitioner, proposal, comments:*

(a) Notice of Proposed Rulemaking is hereby issued concerning the amendment of the FM Table of Assignments (§ 73.202(b) of the Commission's rules) with respect to Poplar Bluff and Thayer.

(b) A petition for rulemaking[1] was filed by Raymond McCullough ("petitioner") proposing the assignment of FM Channel 244A to Poplar Bluff and the substitution of Channel 285A or 286A for Channel 244A in Thayer, Mo. No response to the petition were received.

2. *Community data:*

(a) *Location:* Poplar Bluff, seat of Butler County, is located 310 kilome-

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[1] The term "compounds" shall include organic and inorganic compounds.

[1] Public Notice of the petition was given on February 7, 1979, Report No. 1088.

## Galesburg Technical Discussion

The Galesburg AST review presents an opportunity to discuss one technical matter in some depth; particularly because it clearly shows the need to view such matters in the full context of the national water pollution control program. In their draft review report, the USEPA Task Force questioned the Illinois requirement for final filtration, and directed that additional water quality analysis be performed to determine if less stringent effluent limitations would provide acceptable water quality. The inference is that perhaps an effluent level of about 15 mg/l $BOD_5$ would meet applicable water quality standards.

In response to these concerns, the agency did additional stream modeling analysis varying only the effluent $BOD_5$. This analysis demonstrated that effluent levels in excess of 10 mg/l $BOD_5$ would result in violation of the present Illinois water quality standard for dissolved oxygen (D.O.) applicable to the receiving stream (not less than 6 mg/l for any consecutive 16-hour period and never less than 5 mg/l). A 15 mg/l $BOD_5$ effluent produced a prolonged excursion below the 6 mg/l D.O. level but <u>not</u> below a minimum of 5.5 mg/l. An effluent level of 20 mg/l caused dissolved oxygen sags approaching the 5 mg/l absolute minimum D.O. Since the modeling approach used assumes a "steady-state" system, both 15 mg/l and 20 mg/l effluent levels would <u>violate</u> the "6 mg/l for 16 hours" provision of the Illinois standards. Before placing undue emphasis on these results, a word of caution about water quality modeling is in order. The modified Streeter-Phelps equations used to estimate the impact of the Galesburg discharge on the receiving stream are very basic in their approach to the complex problem of dissolved oxygen prediction.

Many related impacts, such as the streams' ability to cleanse itself of existing pollutant loads and the diurnal D.O. fluctuations due to algae populations, are assumed to be negligible. For these reasons the D.O. analysis should be considered an optimistic approximation of "best possible" conditions achievable under the modeled assumptions.

We also re-evaluated the effluent levels expected from the treatment facilities. A pilot plant study conducted for 78 days by the consultants for Galesburg showed that secondary treatment with nitrification (ammonia control) but without filtration could achieve between 15 and 20 mg/l $BOD_5$ on a monthly average basis. At these levels, about two-thirds of the oxygen demanding materials, as measured by the $BOD_5$ parameter, were associated with solids removable by filtration. However, we must note that these results were obtained under optimum conditions which were not very representative of a realistic operating situation. Both the data from this study and our past experience indicate that activated sludge processes operating within design loading and under normal conditions for larger facilities cannot be expected to achieve effluent quality better than 20 mg/l $BOD_5$ on a monthly average basis. Thus, the need to reduce effluent levels below 20 mg/l on a consistent, monthly basis led us to require filtration for this treatment facility. We believe that this was a sound engineering decision dictated by water quality and regulatory requirements.

This technical discussion brings us to the real heart of the issue. Documented water quality concerns are codified in NPDES permit limitations which for POTWs specify 30-day and 7-day averages for effluent parameters. Compliance with these numerical limitations is an

absolute standard; that is, under the narrow legal test, permittees either stay within those limits or they are in violation of the law. Under the current regulatory structure for NPDES, there is simply no provision for flexible application of limitations that may not meet effluent or water quality requirements. Returning to the Galesburg example, one arm of USEPA, construction grants, now seems to be demanding deferral of filtration facilities that another arm of USEPA, enforcement, has already determined would be necessary to assure compliance. Should the deferral approach be implemented, it will represent movement away from consistency, reliability, and safety with resultant increased in variability, uncertainty, and risk without regard for public due process or potential adverse water quality impacts.

RK:rs/jb/sp1310b/1-40

*State of Kansas . . .* John Carlin, Governor

DEPARTMENT OF HEALTH AND ENVIRONMENT

Joseph F. Harkins, Secretary

Forbes Field
Topeka, Kansas 66620
913-862-9360

November 7, 1979

The Honorable Norman Y. Mineta, Chairman
Subcommittee on Oversight and Review
B-375 Rayburn House Office Building
Washington, D.C. 20515

Attention: Mr. Bob Prolman

Dear Mr. Chairman:

I understand that the Subcommittee held public hearings on October 30 - November 1, 1979, on the management of the municipal sewerage construction grant program as provided by Section 201 of the Federal Water Pollution Control Act as amended. I also understand that the Subcommittee will welcome additional State comments on the program.

During the last several years, several factors have tended to greatly slow down the construction grant program. One factor, the construction grants delegation process, has apparently served to speed up the process in those States which have been able to take advantage of its provisions. The negative factors generally include increased requirements added by the Congress, increased requirements added by executive order, regulatory requirements added by EPA, poor internal administration of the grants process resulting in year-end processing peaks, and the unwelcome addition of the Corps of Engineers to the grant processing chain. Increasingly, the construction grants program has come to resemble an environmental and social Christmas tree with all manner of additional statutory and regulatory objective, including minority business enterprise, public participation, water conservation, land application, advanced waste treatment, reserve capacity, preservation of farmlands, inhibition of growth, protection of groundwaters, innovative and alternative treatment technologies, and industrial cost recovery. Each of these requirements probably have individual merit. Collectively, they constitute an enormous drag on the construction grants program and even simple projects now require six to seven years from time of inception to completion. A municipality, school district, or industry constructing comparable facilities can frequently cut construction time to twelve to eighteen months. The results are generally higher costs and poorer projects. The EPA regulations on Women's Business Enterprises represent the most recent non-water pollution control addition.

Problems with regulatory requirements have been compounded by the general lack of a workable phase-in procedure which causes many projects to be completely redesigned or re-examined. The introduction of the Corps of Engineers into the

process, ostensibly a make-work effort justified on the basis of national defense, has injected another layer of review. We are attaching a series of fact sheets regarding Coffeyville, El Dorado, Ulysses, Auburn, Hesston, and Topeka, Kansas, which document some of these grant induced delays.

The Kansas Department of Health and Environment, through a July, 1979, agreement with the Environmental Protection Agency, has been responsible for the review of plans and specifications, the review of change orders and the review of operation and maintenance manuals. The agreements generally provide that EPA will accept the State certifications in these areas and that State determinations will normally be final and conclusive. The agreement has been very helpful; however, EPA has retained its engineering staff and continues to do a great amount of second guessing. The Corps of Engineers has recently added another layer of redundant review.

Kansas has assigned approximately ten to twelve man-years of effort to the construction grant program. The Environmental Protection Agency provides, through Section 106, approximately one-third of the total State operating budget.

The Kansas Department of Health and Environment anticipated the passage of Public Law 95-217 and, through its regular budget procedure, obtained concurrence of the Governor and the Legislature to seek complete construction grant delegation under what was to become Section 205(g). This action, reflecting the State's budgeting process, was taken in the year preceeding the passage of the Federal enabling legislation. Soon after passage of P.L. 95-217, the State contacted California to obtain detailed information on the agreements which had been developed and already implemented. Simultaneously, the State obtained information from the State of Texas on their workload analysis which had been used by EPA as a model for calculating necessary resources.

On the basis of information obtained from California and Texas, and with concurrence of the Governor and the Legislature, the Kansas Department of Health and Environment requested immediate delegation for administration of the construction grants program under Section 205(g) of the Clean Water Act. The State proposed an "agreement in principle" with full responsibility to be transferred to the State in about eighteen months as the EPA regulations developed.

The EPA regional office refused to proceed with an agreement in principle delegation and took the position that nothing could be done until EPA had completed its delegation regulations. Consequently, the State and regional office continued the tedious process of developing a detailed delegation agreement with numerous detailed supporting subagreements. In general, these subagreements would have required the State to utilize EPA standardized forms and to force most of the EPA's cumbersome bureaucratic procedures on the State.

In late 1978, the State of Kansas became increasingly concerned with the size of its work force. The budget, submitted to the Legislature by the Governor, imposed a severe limit on hiring additional staff, even if supported with funds derived entirely from Federal programs. The State is not presently seeking delegation under Section 205(g); however, this position will be reviewed in approximately six months as a part of the State Fiscal Year 1982 budget procedures.

The problems of the construction grant program can be generally traced to the many non-pollution control requirements which have been grafted onto the construction grant program and to the over-zealous regulatory interpretation by the Environmental Protection Agency.

We suggest that the following actions be considered for streamlining and expediting this program:

1. Purge the Federal Water Pollution Control Act of the many requirements which have no significant impact on pollution control, such as alternative and innovative treatment, land application, industrial cost recovery, buy American, etc. Each of these requirements taken individually have considerable merit. Taken as a whole, they have created a severe and costly case of administrative indigestion.

2. Review all EPA regulations and purge all unnecessary language and requirements which is not directly relevant to the national pollution control effort. A great deal of discretion can be left in the hands of the regional administrator. Attempts to draft regulations which cover every eventuality results in ponderous, almost unintelligible, requirements which complicate the grant application and processing task.

3. Terminate the role of the Corps of Engineers as a third-party reviewing agency. The EPA should, however, have authority to obtain Corps of Engineers talent on a reimbursable basis for construction inspection on large projects.

4. Develop a phase-in procedure for new regulations (on the assumption that the proposals in Paragraph 1 and 2 will be rejected) which would assure that new regulations or statutory requirements would not apply to any project in the grant processing pipeline or which is on the fundable portion of a State priority list.

We greatly appreciate the opportunity to present our thoughts on administration of the construction grants program.

Sincerely yours,

Eugene T. Jensen, Director
Bureau of Water Quality

ETJ:ss

Ulysses, Kansas

Ulysses, Kansas, located in the arid portion of Western Kansas, proposed in October 1978 to construct a municipal wastewater irrigation system. The City, their consultant, the State, and Region VII EPA were enthused with the Ulysses proposal which utilizes lagoons for both primary treatment and storage. However, EPA Washington refused to recognize the primary treatment lagoons and the subsequent storage lagoons as "storage facilities". This interpretation results in a reduction in Federal participation of eligible portions of 20% (85% to 65% eligible) since EPA Washington's ruling classifies the project as multi-purpose rather than alternative. Proper design of a wastewater irrigation system requires the installation of storage facilities in order to store water for operational flexibility. EPA Washington has apparently chosen to ignore this fact. Thus EPA has one group enthusiasthically and successfully promoting land treatment systems. Another section within EPA then rules that said systems will be penalized through lower levels of Federal participation. While this subject is debated, the City is the loser as inflation continues. Review of the Facility Plan has now required more than 14 months and has increased the project's cost by at least 15%.

Colby, Kansas, also located in the western portion of the State constructed a similar system without Federal assistance.

El Dorado, Kansas

The Facility Plan approved for El Dorado in June 1978 recommended upgrading the existing trickling filter and installation of two new interceptors to the plant. Step I reviews by EPA in January 1978 resulted in the requirement of an archeological survey. As the suspected historical sites did not interfere with plant modifications and only affected the last section of the interceptor alignment, the City proposed to proceed with design concurrent with the archeological survey. A Step II application was submitted; however, EPA rejected the concurrent design/survey concept. In the meantime, the archeological survey progressed slowly from Phase I to Phase II and III. After fourteen months, the City and State again requested that concurrent design and archeological survey work proceed. The second proposal was accepted. This was the same proposal presented by the City and rejected earlier by EPA. The unnecessary delay of fourteen months, assuming 12% annual inflation and a total construction cost of $3.0 million, cost $0.5 million.

63-935 O—80——63

Topeka, Kansas

The City of Topeka, Kansas, submitted an infiltration/inflow analysis to the State for review in July 1977. The City of Topeka has combined sewers in some sections of which are interconnected with separate sanitary sewers. The submitted I/I analysis proposed a series of containment and overflow facilities at specific points within the collection system. The proposed approach was sound from an engineering and environmental viewpoint, but unanswered questions arose concerning the legality and permitting of these overflow points. In attempts to resolve this area of confusion, assistance was requested from the Regional EPA office. The response the City and State received was that no permits could be issued for the proposed containment/overflow facilities and that all wastewater must be transported and treated to secondary effluent limits. The City and State were informed that correction of the combined sewer problems would involve separation of sanitary and storm sewers until overflows were eliminated. The City and State have since determined that this advice was erroneous and that other areas of the nation had constructed new wastewater treatment facilities which incorporate overflows from combined sewer systems. This lack of proper program guidance has contributed to delays in excess of two years in solving the Topeka wastewater collection and treatment systems problem.

Hesston, Kansas

Upon approval of the Facility Plan in May 1978, the City submitted a Step IV application. EPA objected to the design fee and suggested a lower dollar amount. A revised contract was submitted and approved with the design fee reduced by only $4,000. The four months of delay associated with this dispute resulted in $38,000 in increased costs, assuming 12% annual inflation and $0.97 million construction cost.

Coffeyville, Kansas

The City experienced a 6 month delay because of a misunderstanding on the determination of Step II engineering fees. Based on a misinterpretation of engineering cost curves from another EPA region, it was stated that the proposed engineering fees were excessive by about $100,000. A later analysis using the same data revealed that the proposed fees could have been interpreted about $100,000 low. EPA then agreed to proceed based upon the original proposed fees. The net result was a 6 month delay and an estimated project inflation cost loss to the City in excess of $500,000.

Auburn, Kansas

The community of Auburn, Kansas, submitted a Facility Plan July 31, 1978, which was approved by the State but which was rejected by EPA because of population projection. The City of Auburn, a bedroom community of Topeka, projected their 20 year population at 2,400 P.E. from their mid-1976 population of 488. EPA would not accept this population equivalent but proposed a P.E. of 1,400. The treatment process selected was existing aerated lagoons with the addition of a small complete mix aerated tank prior to existing lagoons. The larger population projection would have resulted in only 7000 $ft^3$ being added to the tank volume (30' x 30' to 40' x 40'). After 10 months of discussion (argument) over this issue, the Kansas Department of Health and Environment proposed to let the City pay the difference in construction costs and proceed with construction of the larger facility. The City agreed in the interest of progress in the project. The City then appealed to Senator Dole's office on the population questions. As a result of Senator Dole's inquiries, EPA personnel visited the community which is only 100 miles from the Kansas City offices. After gaining first hand information, which they would not accept from the consultant, EPA agreed to participate in the full amount of the treatment system Step II and III costs. The application is presently pending at EPA.

**New York State Department of Environmental Conservation**
50 Wolf Road, Albany, New York 12233

Robert F. Flacke
Commissioner

November 30, 1979

The Honorable Norman Y. Mineta
Chairman of the House Subcommittee on
Oversight and Review
Rayburn House Office Building
Room B-375
Washington, D.C. 20515

ATTENTION: Bob Prolman

Dear Congressman Mineta:

Thank you for this opportunity to present comments "for the record" concerning the status of the management of the 201 Construction Grants Program within New York State.

Our comments, which are contained in the enclosed paper entitled, "Status of the 201 Construction Grants Program in New York State", have been prepared to address the specific issues and questions formulated by your Subcommittee for use during the hearings held on October 30 - November 1, 1979 in Washington, D. C.

It is sincerely hoped that our comments will assist you in the evaluation and status of this extremely large and complex public works program and that serious consideration will be given to our recommendations for streamlining and expediting the program.

If we can be of any further assistance, please do not hesitate to contact this office at (518) 457-3143.

Sincerely,

Ernest F. Trad

Ernest F. Trad, P. E.
Director
Division of Construction Management

FEC/iv
Enclosure

DIVISION OF CONSTRUCTION MANAGEMENT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Status of the 201 Construction Grants
Program in New York State

November 30, 1979

Our assessment of those factors which most significantly affect the Construction Grants Program's rate of progress are as follows:

- Excess new or changing rules and regulations from USEPA.
- Retroactive implementation dates often applied to new rules and regulations.
- The lack of responsiveness USEPA has shown toward this Department's questions and comments regarding EPA rules, regulations, policies and guidances.
- Differences in policies and practices in the implementation of the Construction Grants Program between the various EPA Regions.

It is evident from an overview of our program that the voluminous rules, regulations, policies, Program Requirements Memoranda (PRM's), and guidelines issued by the USEPA to implement the Clean Water Act are, in many cases, burdensome to New York and its municipalities.

The first example of a burdensome requirement is EPA Region II's "Guidance and Procedures for Compliance with Minority Business Enterprise (MBE) Requirements" distributed in April, 1979 to implement EPA's national MBE policy published in the December 26, 1978 Federal Register. The national EPA policy objective of increasing the number of MBE's in the construction grants program is basically sound. However, EPA Region II's implementing policy "requirements" have an adverse program impact:

a. The retroactive imposition of this policy to February 1, 1979, the lack of clear and consistent guidance on critical issues and the timing of policy issuance (just at the beginning of the construction season) had the combined effect of delaying projects otherwise ready to bid and thereby increasing project costs due to inflation.

b. EPA Region II's policy of requiring a minimum goal of ten percent MBE participation for all projects is not cost-effective or practical for many New York State municipalities, especially those located in rural upstate areas.

c. EPA's policy of encouraging applicants to seek out-of-state MBE's to meet minimum project goals tends to drive costs upward due to increased costs of travel and mobilization to the Contractor which is passed on to the municipality. This strategy tends to increase already critical unemployment problems and financial burden in many communities.

d. It would appear that a similar program for women (WBE) will impose yet another set of regulations and goals on this program.

The second example of excessive regulations is the implementation by EPA Region II of the USEPA Public Participation rules and regulations, 40 CFR, Part 25 and Part 35, (February 16, 1979). Region II has recently issued an Interim Guide to Public Participation to implement the national regulations. By any reasonable interpretation, the Regional Policy requires a full-scale public participation program for virtually all projects under the 201 Program, whereas the national regulations state the Agency's expectation that only approximately 30 percent of the Step 1 projects will be required to conduct a full-scale program (40 CFR, Part 35, 3. Criteria for Full-Scale Public Participation, Page 10301, February 16, 1979). This gives every appearance that Region II has exceeded the administrative authority delegated to them by EPA Washington.

The applicability of the public participation process to Step 2 and Step 3 grants is totally unclear at this time. While Part 35 states under the "Response to Public Comment" section that "EPA will not impose public participation requirements in Steps 2 and 3", Part 35 goes on to require public participation for Step 2 and 3 grants under the circumstances detailed in 40 CFR, §35.917-5(f)4. This section requires a public participation work plan in accordance with §35.917-5(g), a non-existent section of the regulations.

Region II reflects this confusion at the national level by providing on Page 22 of the Interim Guide that "Guidance is expected from EPA headquarters in Washington, in the near future, on the applicability of Step II and Step III requirements to grants for which the Plan of Study or the application for the Step I grant was approved before February 16, 1979".

Therefore, it is obvious that grantees submitting Step 2 and Step 3 applications after February 16, 1979 have no clear idea of what is required of them under the Federal Regulations. If EPA Washington eventually decides to retroactively apply public participation requirements to all Step 2 and Step 3 grants, many projects will be delayed while the grantee goes through the public participation process.

The New York State Department of Environmental Conservation (NYSDEC) has experienced that the net savings or benefits of applying new regulations can be more than eliminated by the inflated cost municipalities must pay due to project delays.

An example of a project in New York State that has been delayed several years by EPA's regulatory "wisdom" is the Tri-Municipal Project, C-36-948 for Dutchess County, New York.

In 1973, the Towns of Wappinger, LaGrange and Poughkeepsie, and the Village of Wappinger Falls, New York formed the Tri-Municipal Commission in a collective attempt to solve common sewerage problems. Advantages of combining systems were, at that time, apparent: economy of effort, greater funding, a single engineering report, and a single treatment facility. The development of a wastewater facilities report was an ongoing process which extended from the late 1960's through November, 1974.

The pertinent dates for the project are:

- December 1974 - The Tri-Municipal Committee approved the Wastewater Facilities Report for a large regional plant and authorized submission to the NYSDEC for final review and approval of the project.

- August 1975 - A meeting was held involving representatives of the Commission, NYSDEC and USEPA to review aspects of the wastewater facilities report. At this meeting, the recommended plan for a regional treatment facility was discussed and approved in principle.

- June 1976 - NYSDEC approved Tri-Municipal Wastewater Facilities Report and submitted it for EPA approval along with a Step 2 Grant Application.

- October 1976 - USEPA rejects Tri-Municipal Wastewater Facilities Report. EPA Region II's reasons for the rejection were:

  - the design size and capacity were thought not to be cost-effective and that alternative wastewater treatment management techniques must be considered and evaluated.

The basin-wide Comprehensive Study completed in the early seventies, along with the recommendations of the USEPA and the NYSDEC in the pre-engineering evaluations, advised not to consider retention of existing plants as an alternative to a regional plant and that no aid would be given to the individual municipalities to upgrade their plants. An explanation of this unfortunate mid-course shift by EPA was that program emphasis had changed from regional "plant" to regional "plan". Consequently, the Tri-Municipal Project was caught in the middle of a policy change without an approvable Facility Plan after years of work.

EPA's environmental review of the Tri-Municipal Sewer Improvement area indicated both "deficiencies in the Environmental Assessment Statement and a potential for significant, adverse environmental impacts". The discussion given related the project to EPA's Final Regulations for the Preparation of Environmental Impact Statements (Federal Register, Vol..40, No. 72 - Monday, April 14, 1975); six months after the release of the original Facility Plan! With this in mind, EPA required an EIS for the Tri-Municipal Project as part of the Step 1 process.

In late 1977, the task of preparing an EIS was initiated. EPA requested the Commission's assistance in preparing an EIS by initiating an EAS/EIS "Piggybacking" procedure. It took almost one full year for the Commission to hire a consultant to prepare the EIS, due to new EPA Procurement regulations. The EIS is now into its second year of preparation with the hope that completion is imminent. To date, the EIS has yet to recommend any major project changes that would significantly improve upon the environmental feasibility of the original project.

Preliminary reports from the cost analysis and the EIS indicate that Regional Plant Alternative #1 will be the most favorable. After five years of administrative and regulatory hassles with EPA, the Tri-Municipal Commission will probably receive a Step 2 grant for a treatment plant and collection system, sized down yet similar to the system that the Commission had submitted to, and then was approved by NYSDEC in 1976. If EPA had approved the original Facility Plan, a sewage treatment plant could possibly be on line by now, and providing adequate treatment of wastewater that now continues to be discharged at levels below secondary standards. Instead, we have a situation where a Step 2 grant has yet to be approved and there are potentially years before a treatment plant comes on line.

Differences in policies and practices in the implementation of the Construction Grants Program between various EPA Regions are also evident. EPA Region II has placed a greater burden on New York State in two general areas:

1. Region II appears to react quicker than their neighboring Regions in imposing new regulations and policies from EPA Headquarters. Because New York State has a well-established construction grants program with an experienced staff, new regulations are more quickly and easily incorporated into the grants process than other northeastern states. In many cases, this results in New York municipalities receiving new burdens sooner.

2. EPA Region II tends to be more conservative and more stringent in their interpretation of policies and regulations compared to other Regions. A recurring example of this situation is Region II's enforcement of Program Requirements Memoranda (PRM's) as requirements rather than guidance. Program requirements should only be imposed through the legislative or regulatory process. These stringent interpretations result, in many cases, in a greater burden being placed on New York State as compared to other states.

Under previous delegation agreements, the NYSDEC has assumed responsibility for several administrative and technical functions for the Construction Grants Program. Under the terms of the 1977 Delegation Agreement, Functional Agreements Regarding Delegation and Authority Between NYSDEC and USEPA, dated 6/1/77, this Department assumed responsibility for the following functions:

- Infiltration/Inflow Analysis
- Plans and Specifications
- Authorization to Award Contracts
- Monitoring Construction Operations
- Construction Contract Modifications
- Plans of Operation

The Agreement For Administering the Construction Grants Program Between USEPA and NYSDEC, 12/26/78, provides for the ultimate delegation, through eight subagreements of all Construction Grants Program Activities to NYSDEC. As of 11/1/79, the following functions, listed by subagreement, have been negotiated by NYSDEC:

A-8 Information Dissemination
A-9 Development and Maintenance: Management Control Information

B-3 Administrative Review of Step 1 Grant Application*

C-4 Sewer System Evaluation and Rehabilitation*

D-1 Administrative Review of Step 2 Grant Application*

E-1 Process Design Meetings*
E-2 Review of Value Engineering
E-3 Review of Plans and Specifications*

F-2 Administrative Review of Step 3 Grant Application*

G-1 Pre-Construction Contract Award Management*
G-2 Processing Construction Grant Authorization to Award Contracts*
G-3 Monitoring Construction Operations*
G-4 Approving Construction Contract Modifications*
G-5 Certification of Plan of Operations*
G-6 Relocation Assistance: Monitoring and Review*
G-7 Review and Certification of Industrial Cost Recovery Systems
G-8 Review and Certification of User Charge Systems
G-9 Conducting Final Inspections*

H-1 Interim Payments
H-2 Tracking Grant Conditions and Outlay Management
H-3 Review and Approval of Negotiated Subagreements, Subcontracts to Subagreements, and Force Account Review and Approval, under 40 CFR Parts 33 and 35
H-4 Protest, Disputes and Audits
H-5 Closeout of Reimbursement Projects*
H-6 Processing Public Inquiries
H-7 Construction Grant Final Payment and Closeout of Projects*
H-8 Contract Enforcement
H-10 Institutional Arrangements*

*Note: Functions are already assumed by NYSDEC

While implementing the State Management Program under 205(g) of the Clean Water Act, NYSDEC has experienced a "slippage" from its original schedule. This slippage in assuming recently delegated functions has been caused by the added responsibilities of conducting a major reorganization of the Construction Management Division within NYSDEC, recruitment and training of qualified personnel, and the slow movement of the Intergovernmental Personnel Act (IPA) program, all while implementing the Construction Grants Delegation Agreement.

Implementation of the Section 205(g) Delegation Agreement as experienced by NYSDEC, cannot be separated from the progress of the Construction Grants Program. On September 30, 1979, NYSDEC, with the full cooperation of USEPA, succeeded in obligating all of the FY 1978 funds allocated to New York State despite early projections of large scale losses. Meeting the September, 1979 deadline meant the NYSDEC and USEPA resources that would have gone to implement Delegation were used to process projects. In addition, the Agreement was signed several months late and new hiring did not begin until April, 1979, almost six months later than original target date of September, 1978. Of the 237 original

first and second wave positions, which should now be hired, only 211 have been approved and 156 hired. As a result, no additional negotiated functions have been transferred from USEPA to NYSDEC since signing the agreement and none of the reserved subsections have been negotiated. Despite all these problems, there remains tentative plans for NYSDEC to achieve full delegation by October, 1980.

The amount of Section 106 Water Pollution Control Program Grants awarded to the NYSDEC on an annual basis is as follows:

| FEDERAL FISCAL YEAR | AWARD AMOUNT | SPECIAL SECTION 106 AWARD | TOTAL |
|---|---|---|---|
| 1972-73 | $ 2,089,961 | $ | $ 2,089,961 |
| 1973-74 (1) | 2,342,748 | | 2,342,748 |
| 1974-75 | 2,203,382 | | 2,203,382 |
| 1975-76 | 3,109,373 | 1,162,766 (3) | 3,483,537 |
| 1976-77 | 2,880,416 | ( 374,164) ( 521,071) | 3,401,487 |
| 1977-78 | 2,999,044 | ( 267,531) | 3,266,575 |
| 1978-79 | 2,886,400 | | 2,886,400 |
| 1979-80 (2) | 2,684,000 | | 2,684,000 |
| TOTAL | $21,195,324 | $1,162,766 | $22,358,090 |

(1) In 1974, the federal fiscal year changed from July 1 through June 30 to October 1 through September 30.

(2) The 1979-80 award has not been received as of November 30, 1979.

(3) Special Section 106 awards were released by Congress after a Lawsuit was instituted and the Federal Congressional Budget and Impoundment Act of 1974 was passed. These "one-shot" funds were a restoration of 106 funds impounded in the previous two years. The numbers in brackets are the values actually spent in the corresponding fiscal year and in total add up to the Special Section 106 award. The numbers in brackets are used to compute the TOTAL column.

Section 106 funds were utilized for approximately 120 positions within this Department. Of this total, approximately 20 positions were involved in the administration and management of Steps 1, 2 and 3 activities in the Construction Grants Program.

As a result of recent experiences with the Construction Grants Program, NYSDEC has several recommendations to make for streamlining and/or expediting the 201 Program.

- Reduce federal involvement in the administration of the Construction Grants Program by the elimination of all new "guidances", "regulations", "program requirements" that are imposed on projects which have previously received a grant for the planning, design and/or construction steps. This is consistent with recent Congressional and EPA pronouncements

should not apply retroactively to projects where construction is underway or likely to be underway within six months of the grant award. In addition, EPA should analyze the impacts of proposed new regulations and/or policies on State and local manpower needs prior to enactment, and minimize new regulations that would significantly alter the progress of projects already in the "pipeline".

- State allotments for financial support (grant) for construction grants management assistance delegation under Section 205(g) should be based on 2% of the amount authorized by Section 207 of the Clean Water Act rather than the amount appropriated for construction grants each year. This would allow long range planning by the States rather than being subject to changing Federal priorities on an annual basis.

- Construction Grant funding should be as authorized and be available for obligation for a three-year period. This would extend the obligation period for one year, which New York State endorses. Erratic funding of construction grants is not conducive to rational construction grant program management.

- The "peaks and valleys" of obligation of Step 3 grants are being acutely felt in New York State. The erratic award of grants results in large numbers of projects going to bid at the same time, which decreases bid competition and consequently increases project costs. Grant awards should be made uniformly throughout the fiscal year.

- Waivers of substantial portions of the federal regulations and requirements are needed to expedite processing of construction grants for small communities. Initial steps have been taken in this regard by the implementation of the President's Rural Development Initiatives which establish procedures for coordinating and simplifying various federal water and sewer programs for small, rural communities. In essence, these initiatives will help to eliminate administrative duplication among Federal agencies and provide for single determinations of compliance with Federal laws. The next step in this streamlining process should be the institution of a waiver system in the 201 Program which would allow greater latitude to "delegated" States in the degree of imposition of certain Federal regulations and requirements which could be reduced or eliminated without compromising the goals of the Clean Water Act.

- It is recommended that a percentage of the project construction cost, say 1 or 1.5%, be granted to each applicant to cover the costs of legal, fiscal, and administrative services. This will make recordkeeping simpler and save many hours of tedious work in preparing the final audit.

- Establishment of a borrowing pool that would finance the federal share of a projects' costs by bringing together a lender state (one which has federal funds in excess of its need of federal funds in addition to its allotment during the same fiscal year) and a borrower state (one which is in need of federal funds in addition to its allotment during the same fiscal year).

Ohio EPA

RECEIVED

NOV

CONG. NORMAN Y. MINETA

Congressman Norman Mineta
Chairman of the House Subcommittee
on Oversight and Review
Rayburn House Office Bldg, Room B-375
Washington, D.C. 20515

November 26, 1979

Attention: Bob Prolman

Dear Congressman Mineta:

Enclosed for the record are Ohio's comments concerning the status of the management of municipal waste treatment facilities under the Construction Grants Program in the State of Ohio. The specific issues and questions considered are addressed in the order outlined in the October 25, 1979 ASIWPCA communication.

1. Assessment of those factors which most significantly affect the Construction Grants Program's rate of progress.

   A) Extensive delays in getting I/I and SSES work completed and approved.

   B) PRM's which are supposedly refinements of existing U.S. EPA policy; (i.e.) 1) PRM 75-34 - Cincinnati MSD has had some sewer projects for which detail plans have been prepared that have been delayed for at least two years awaiting results of their CSO study, 2) PRM 77-8, 78-9 and finally 79-8 - each PRM made some changes or refinements to the original PRM.

   C) AST/AWT review has created chaos in the program - entities and consultants are unsure as to how or what to design or construct and states are unclear as to what limits should be enforced. Certain obvious situations need advanced treatment and should not require extensive justification. Management of the PPL, including Step 3 grant award amounts and dates are almost impossible to project on a 5 year list when there is no clear policy on what AWT/AST construction will be grant eligible.

   D) EIS preparation in some instances have been disastrous. (i.e.) The Columbus EIS prepared by the U.S. EPA took 39 months to prepare and still requires additional facilities planning be done; in the meantime the City sat waiting, delaying upwards of $300 million in federal grant funds.

State of Ohio Environmental Protection Agency
Box 1049, 361 E. Broad St., Columbus, Ohio 43216 • (614) 466-6565

James A. Rhodes, Governor
James F. McAvoy, Director

The only major revision was to require pre-treatment of brewery waste, a decision objectionable to both the City and the brewery. Considering inflation, it is questionable what cost savings are effectuated from EIS's, CSO studies, AWT/AST, etc.

E) U.S. EPA apparently has the impression that communities will do anything to get 75% construction grant funding and therefore require complicated applications with many requirements. This is far from true. Communities must pay 25% of all eligible costs plus all ineligible costs. This often means the grantee is paying up to 35% of total project costs.

F) The pre-treatment program is certainly a needed program. However, it is an example of additions to the grants program, which after a certain time period, will prevent municipalities from acquiring grant funds if they have not accomplished certain steps.

G) The U.S. EPA's response to criticism over funding of some controversial projects was to demand a high degree of quality in every project. This desire for perfection, while changing few projects, has delayed untold numbers. Perhaps the quality vs. quantity argument requires that a middle ground be established.

H) The Construction Grant Program is becoming increasingly burdensome and frustrating to consulting engineers. In many instances, consultants are not able to break-even, much less make a profit, on facility planning. Meanwhile the U.S. EPA appears to desire to control profit margins to an even greater extent. Most consultants are still trying to work with the program and improve it (as evidenced by Program PUMP). However, we have heard from more than one consultant that although they will work with their existing clients to complete projects, they may not seek new jobs. This should serve to point out that there are some basic problems in the program.

2) A description of any Construction Grants Program review and approval functions previously delegated to your state by US EPA under a memorandum of understanding or other administrative mechanism.
   A) Detail Plan and Specifications
   B) Operation & Maintenance Manual
   C) Change Orders (Technical Approval only)

Congressman Norman Mineta
November 26, 1979
Page Three

3) The amount of Section 106 funds that have been made available to your state on an annual basis since 1972 and the amount of those funds for each year which have been spent in implementing and managing Steps 1, 2, and 3 portions of your state program.

Financial information for the years prior to Fiscal Year 1975 is not available. For FY'75 and later years, the amount of Section 106 funds made available to the State of Ohio and the amounts utilized for the Construction Grant Program are as follows:

| Fiscal Year | State 106 Funds Total | State 106 Funds Construction Grants |
|---|---|---|
| 75 | 2,044,045 | 223,504 |
| 76 | 2,467,600 | 190,578 |
| 77 | 1,786,336 | 115,632 |
| 78 | 1,288,550 | 106,082 |
| 79 | 2,079,497 | 147,548 |

It should be noted that time accounting systems were revised several times during the period. Therefore the dollar volumes from year to year may not be totally comparable.

4) A review and progress report on your experiences in implementing the State Management Assistance Program under Section 205(g) of the Clean Water Act, and your assessment of how long it will be before you have full delegation.

At the present time little progress has been made in implementing the Section 205(g) program in the State. U.S. EPA has maintained a very hard line as to what the State must do before we get 205 money. Ohio does not have up front money to get started in the program and U.S. EPA will not release 205 funds until the State has a proven track record. With this stalemate, it will be several years before Ohio has full delegation.

5) Your recommendations for streamlining and expediting the program.

A) In the past the main goal of the program was to correct existing pollution problems. In the late 1960's and early 1970's millions of dollars were allocated and spent for construction of needed water pollution control facilities. The new program direction and emphasis seems to be more concerned with planning for pollution abatement rather than correcting it, and on correcting existing social ills, (MBE Buy American, recreation, etc).

63-935 O—80——69

If this is going to be the new goal of the program, the enabling legislation (PL 95-217) should be changed accordingly. At this time, the 1983 deadline is out of the question with the two competing goals. Both goals are beneficial but in the context of 1983 they are not compatible.

B) One of the major problems is dealing with the federal policies and regulations. As noted, these requirements do have logical reasons behind them and probably are relevant to the basic functions of the Grants Program. The problem therefore is not so much with the intent of these requirements, but in devising a means of carrying them out effectively and efficiently. Areas where the U.S. EPA has been neglecting its responsibilities include:

1) They should be able to provide more specific guidance on how a given regulation or policy can be successfully met. Once a requirement is promulgated, there is often an extreme amount of lag time before any type of implementation instructions are passed on to the states and the applicant. The net result is a de facto retroapplicaton of the requirement. Also, project-specific guidance that will be honored at a later date in the review process is difficult to obtain from the Region.

2) Unless a state has 205(g) delegation, it has no assurance that if it develops its own implementation guidelines for a given requirement that these guidelines will be accepted on a individual project-by-project basis. A state should be able to have a greater ability to devise its own approaches which meet the intent of the requirements.

3) Another area for expediting the program is relative to innovative and alternative approaches to waste treatment problems . U.S. EPA should provide for 100% demonstration grants for the construction, operation, and maintenance of these systems to provide pilot testing - type information.

Congressman Norman Mineta
November 26, 1979
Page Five

Thank you for the opportunity to provide input to the Oversight and Review Hearings on the status of the 201 Construction Grants Program. We hope the above comments reflect the high level of concern that our Agency and professionals in the wastewater field have for the future of the Program. We would be happy to provide any additional assistance that we can.

Very truly yours,

James F. McAvoy

James F. McAvoy
Director

JFM/ds

Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

James D. Cline, Director
Room 426 801-533-6121

(801) 533-6146

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS
Community Health Services
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Health Care Financing and Standards

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Health Planning and Policy Development
Medical Examiner
State Health Laboratory

November 27, 1979

Congressman Norman Mineta
B-375 Rayburn House Office Building
Washington, D.C. 20515

ATTENTION: Bob Prolman

Dear Bob:

Regarding the oversight and review hearings on the status of the 201 construction grants program which you have held, and your request for additional written input, we are providing the following information on behalf of the State of Utah:

1. Factors Which Most Significantly Affect the Construction Grants Program Rate of Progress:

   The most significant single factor affecting project progress in the construction grants program is the excessive amount of time required to complete the Step 1 facilities planning and to get the plan approved by EPA. The regulations have become so numerous and complex that when considering the time value of money at today's inflation rate, they have become counter-productive to overall program goals. This, coupled with an inordinate amount of EPA review time, results in a completely unacceptable rate of progress for an average project. Attached are a few specific examples from our files of problems with the EPA step 1 project review process. These examples basically illustrate (a) slow EPA facility plan reviews; (b) slow resolution of problems once they are identified; and (c) bypass of the State in dealing with grantee problems.

2. Construction Grants Program Review and Approval Functions Previously Delegated by an EPA Memorandum of Understanding:

   Utah had previously been delegated review responsibility for plans and specifications, change orders and operation and maintenance manuals.

3. Progress Report of State Management Assistance Program Under Section 206(g):

   Utah's delegation agreement was signed on September 27, 1979. The State now has review responsibility for plans

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and specifications, change orders, plans of operation, infiltration/inflow studies, preapplication conferences, and Step 1 application reviews. It is estimated that it will take about two years before full delegation of all delegable functions may occur.

In general we have experienced a reluctance on the part of some EPA personnel to relinquish control.

4. Section 106 Funds Summary:

| Year | 106 Funds | 106 Support of Construction Grants |
|---|---|---|
| 1974 | $226,000 | $40,000 |
| 1975 | 226,000 | 45,000 |
| 1976 | 226,034 | 50,000 |
| 1977 | 226,034 | 90,000 |
| 1978 | 296,400 | 90,000 |
| 1979 | 296,400 | 90,000 |

5. Recommendations:

The Association of State and Interstate Water Pollution Control Administrators "Recommendations for an Improved National Water Quality Program--May, 1979", as they relate to the Construction grants program, should be implemented. A rapid and full delegation of program management responsibility according to the Section 205(g) of the Clean Water Act should be completed.

We appreciate the opportunity to provide these comments. If there are any questions please contact us.

Sincerely,

Calvin K. Sudweeks, Director
Bureau of Water Pollution Control

DAO:lp

cc: ASIWPCA

Please make a copy of this for me and give this to CC

SMITHFIELD CITY CORPORATION
SMITHFIELD, UTAH 84335

Officials
H. LONNIE LOVEDAY
MAYOR
FIRE, POLICE AND FINANCE
BETTY J. HATCH
RECORDER
SYLVIA R. TOOLSON
TREASURER

Councilmen
L. BUDD LOW
STREETS AND SIDEWALKS
DON HANSEN
CULINARY AND
IRRIGATION WATER
LLOYD J. MEYER
FIRE DEPT. AND ZONING
C. DENNIS FUNK
DOG CONTROL
CEMETERY-HISTORICAL-
HERITAGE SOCIETY
GLEN H. OLIVERSON
HEALTH, SANITATION
PARKS & RECREATION

October 2, 1979

RECEIVED
OCT 3 1979
Utah State Div. of
Environmental Health

James Brooks
Environmental Protection Agency
Division of Utah Grants (8W - OG)
1860 Lincoln Street, Suite 103
Denver, Colorado 80295

Re: Federal Sewage Works Grant
Smithfield, Utah Facility Plan
C 490253

Dear Mr. Brooks:

Thank you for taking your time and meeting with Councilman Don Hansen and myself, Valley Engineering and the Department of Health regarding our Facility Plan.

Pursuant to said meeting the Health Department expedited their review of the "preliminary draft" of the Facility Plan and we are now in receipt of their comments. We have found that Mr. C.C. Patel and other Health Department personnel have been very cooperative and are trying to eliminate the "bottle neck" in the Federal Sewage Works Grant Program.

In order to keep our project moving forward towards a bond election and hopefully a Step II and Step III Grant we again ask that you try to influence the EPA review of the "preliminary draft" towards an early completion.

As discussed in our meeting the Smithfield City Mayor and Council have put forth considerable time and effort on the proposed municipal sewerage system. We feel that the favorable citizen momentum will be somewhat diminished if we cannot get our project to a bond election in early 1980. We are unable to proceed much further with public meetings, financing and the like until our Facility Plan is completed and approved.

Again we ask for your indulgence on our project in influencing the EPA staff to complete their review so that our Engineer can complete the Facility Plan.

Your understanding will be appreciated.

Sincerely,

SMITHFIELD CITY CORPORATION

George L. Walker, Jr.
Public Works Director

GLW:kr
cc: Mayor and City Council
Calvin K. Sudweeks
Valley Engineering

Governor

DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

James C. Mason, M.D., Dr.P.H.
Executive Director
801-533-6131

DIVISIONS
Community Health Services
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Administrative Services
Health Planning and Policy Development
Medical Examiner
State Health Laboratory

September 21, 1979

MEMORANDUM

TO: Calvin K. Sudweeks, Director
Bureau of Water Pollution Control

FROM: Fred C. Pehrson
Public Health Engineer

SUBJECT: Design Flow Controversy for Proposed Monticello Wastewater Treatment Facility.

Following is an account of the facility plan for the proposed Monticello wastewater treatment works which has resulted in a discrepancy between the involved parties (State, EPA, and engineer) as to the projected flow to be used for design purposes.

| | |
|---|---|
| July 12, 1976 | Facility Plan submitted: the report recommended the design be based on 100 gpcd. |
| October 18, 1976 | EPA review comments: letter contained no comments relative to design flow. |
| August 26, 1977 | Supplementary Engineering Report: |
| December 22, 1977 | EPA review comments: "It is our opinion that the facility plan does not contain information that would justify the increased per capita average flow...Additional justification for the higher design flow is necessary." |
| March 14, 1978 | Engineer's letter of response: Actual flow data showed 80 gpcd for a three week period in August and 125 gpcd for a three week period in January/February. Engineer felt it was reasonable to use 100 gpcd for design. |
| March 30, 1978 | Ted Hilmer met with City, State and Consulting Engineer in Monticello to go over the problems brought up in their previous letter and to discuss the land application issue. Nothing was mentioned of the design flow issue, so we assumed everything was all right. |
| May 30, 1978 | EPA letter requesting additional information; again, nothing was mentioned regarding the design flow issue. |

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May 7, 1976 Negative Declaration : "EPA regulations require for design purposes that average base sewage flows of no more than 70 gpcd be utilized for cities such as Monticello with projected total ten year populations of 5000 people or less. This design criteria will be utilized by the engineer when preparing the plans and specifications..."

In conclusion, we and the engineer felt all along there was no problem in using the 100 gpcd design figure since this was representative of actual flow. EPA raised the issue at one time and requested additional justification which was appropriately submitted to them. This occurred about two years ago. It was assumed that this information was adequate in that it contained actual measured flow and EPA did not indicate otherwise. EPA waited until May 7, 1976, in the Negative Declaration, to drop the "bombshell". Requiring the design to be based on 70 gpcd is completely unrealistic. Moreover, if EPA felt that the supporting information was not adequate, it is not clear why they did not ask for more information at that time or even raise the question.

lp

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

(801) 533-6146

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Health Planning and Policy Development
Medical Examiner
State Health Laboratory

Roger Williams
Regional Administrator
Environmental Protection Agency
Region VIII
1860 Lincoln Street, Suite 103
Denver, Colorado 80295

Dear Roger:

It was a pleasure to meet you in the Washington, D.C. subway on September 19th and to visit for the few moments available. Among other things you asked what some of the problems were that seemed to be creating friction between our staffs. I promised to advise you.

The following is an example of some of the things that bother us and you should be able to sense the frustration and anger we feel, not only because of the way it is being handled but, because of the apparent incompetence relative to the decision to require construction of an undersized plant. Not only the time delays involved in resolving such problems eat heavily into the State's construction grants allotment but result in increases in the local share. In fact, we end up paying the price for a properly sized facility without getting it.

This example involves the facility plan for the proposed Monticello wastewater treatment plant, specifically with respect to the question of design flow. The following is a chronology of significant events.

| | |
|---|---|
| July 12, 1976 | Facility Plan submitted: the report recommended the design be based on 100 gpcd. |
| October 18, 1976 | EPA review comments: letter contained no comments relative to design flow. |
| August 26, 1977 | Supplementary Engineering Report: |
| December 22, 1977 | EPA review comments: "It is our opinion that the facility plan does not contain information that would justify the increased per capita average flow...Additional justification for the higher design flow is necessary." |

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| | |
|---|---|
| March 14, 1978 | Engineer's letter of response: Actual flow data showed 80 gpcd for a three week period in August and 125 gpcd for a three week period in January/February. Engineer felt it was reasonable to use 100 gpcd for design. |
| March 30, 1978 | Ted Hilmer met with City, State and Consulting Engineer in Monticello to go over the problems brought up in their previous letter and to discuss the land application issue. Nothing was mentioned of the design flow issue, so we assumed everything was all right. |
| May 30, 1978 | EPA letter requesting additional information; again, nothing was mentioned regarding the design flow issue. |
| May 7, 1979 | Negative Declaration: "EPA regulations require for design purposes that average base sewage flows of no more than 70 gpd be utilized for cities such as Monticello with projected total ten year populations of 5000 people or less. This design criteria will be utilized by the engineer when preparing the plans and specifications..." |

In conclusion, we and the engineer felt all along there was no problem in using the 100 gpcd design figure since this was representative of actual flow. EPA raised the issue at one time and requested additional justification which was appropriately submitted to them. This occurred about two years ago. It was assumed that this information was adequate in that it contained actual measured flow and EPA did not indicate otherwise. EPA waited until May 7, 1979, in the Negative Declaration, to drop the "bombshell". Requiring the design to be based on 70 gpcd is completely unrealistic. Moreover, if EPA felt that the supporting information was not adequate, it is not clear why they did not ask for more information at that time or even raise the question.

Sincerely,

Calvin K. Sudweeks, Director
Bureau of Water Pollution Control

lp

9/14/79

HURRICANE

Federal Sewage Works Grant

| Date | Discussion |
|---|---|
| Dec. 21, 1976 | Step 1 application submitted to EPA. |
| Apr. 4, 1977 | Revised Step 1 application submitted to EPA because the City changed the consultant. |
| Sept. 9, 1977 | Step 1 grant awarded by EPA. |
| July 26, 1978 | Public Hearing on the draft Facility Plan. Draft Facility Plan submitted to State and EPA. |
| | Discussions between EPA and consultants concerning use of on site systems which eventually got ruled out. |
| Jan. 15, 1979 | Completed Facility Plan submitted to EPA. |
| Jan. 29, 1979 | Completed Facility Plan submitted to State. |
| May 11, 1979 | Comments by State sent to consultants. |

No written comments yet received from EPA on the Facility Plan. Telephone discussions between EPA and consultants continued concerning environmental concerns, feasibility of Toquerville's inclusion in the project, location of the treatment site, etc. EPA insisted on locating lagoons at a site which was not even mentioned in the report.

As per the information obtained by telephone this week, a draft Negative Declaration is being prepared indicating that this project to include Hurricane and LaVerkin is about ready to be approved and site #7 will be used for treatment. This site has been recommended by consultants. Toquerville will be dropped out.

Most of the time wasted in this project involved resolution of EPA's arrogant ideas and views. This was never reduced to writing. Eventually, EPA had to settle for the consultant's original recommendations.

9/14/79

Problem Resolution

BLANDING

Federal Sewage Works Grant

| Date | Discussion |
|---|---|
| Jan 12, 1976 | Step 1--Preapplication Conference |
| May 26, 1978 | Facility Plan Submitted |
| Aug. 25, 1978 | EPA comments on facility plan. Stated that design should be based on 83 gpcd. |
| Sept. 26, 1978 | State's letter to EPA asking for 100 gpcd to minimize delays which would result from additional monitoring. |
| | (No response to that letter). |
| Nov. 13, 1978 | EPA letter to City stating 70 gpcd must be used for design. |
| Continual discussions with EPA, State, City and Consulting Engineers | |
| June 8, 1979 | Discussed again with EPA in our office. |
| June 13, 1979 | Formal request sent to EPA to review the problem. |
| | (No response). |

Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

James D. Cline, Director
Room 426 801-533-6121

Jennie O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS
Community Health Services
Environmental Health
Family Health Services
Health Care Financing
and Standards

OFFICES
Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

Sept. 4, 1979

MEMORANDUM

TO: File

FROM: Robert A. Sperling, Public Health Engineer

SUBJECT: Complaint against EPA

On August 28, 1979, Larry Alsup of PM Engineering called to request a meeting with Ted Hillmer on the following day. I called Ted and he said 11:00 a.m. on the 29th would be fine.

At the specified time Larry Alsup and Rex Ausburn of PM Engineering and Jim Smith of Community Consultants came to our office for the meeting. When Ted did not arrived I called Denver to learn of his fate. The secretary said he had not left yet. The meeting had to be cancelled.

Ted finally showed up at 1:00 p.m, two hours later. I asked where he'd had been and why he hadn't called. He said they didn't have a telephone on the airplane. Upon further inquiries Ted became very insulting so I dropped the subject.

Four people were inconvenience because Ted could not make a phone call telling us that he would be late.

laf

An Equal Opportunity Employer

Association of State and Interstate Water Pollution Control Administrators

ASIWPCA

RECEIVED
OCT 29 1979
Utah State Div. of
Environmental Health

Robbi J. Savage
Executive Director

TO: ASIWPCA Members

DATE: October 25, 1979

SUBJECT: OVERSIGHT AND REVIEW HEARINGS ON THE STATUS OF THE 201 CONSTRUCTION GRANTS PROGRAM.

The House Public Works and Transportation Committee's Subcommittee on Oversight and Review, chaired by Congressman Norman Y. Mineta (CA-D), has scheduled hearings concerning the review and status of the Construction Grants Program for Tuesday-Thursday, October 30-November 1, 1979, in Washington, D.C.

People asked to appear as witnesses include representatives from three specific states (Texas, Iowa, and New Hampshire...representing thier states only), US Enviornmental Protection Agency, equipment manufacturers, ACEC (consulting engineers), and a small municipality.

The schedule of the hearings follows:

Tuesday, October 30 - 10:00 am, Rayburn House Office Building, Room 2253

Wednesday, October 31 - 10:00 am, Rayburn House Office Building, Room 2253

Thursday, November 1 - 10:00 am, Rayburn House Office Building, Room 2167

The Subcommittee has formulated questions for the States involved to address in their testimonies. They are also eager to receive written comments from each state concerning these topics. I have enclosed these questions and encourage each of you to study them and respond "for the record" as soon as possible. Your comments concerning these matters should be submitted to Congressman Norman Mineta, B-375 Rayburn House Office Building, Washington, D.C. 20515--Attention: Bob Prolman before the end of November.

Hall of the States • 444 North Capitol Street, NW, Suite 330 • Washington, D.C. 20001 • (202) 624-7782

The following are specific issues and questions which should be considered as you prepare your comments "for the record" concerning the status of the management of municipal waste treatment facilities under the Construction Grants Program within your State. Your comments should be addressed to Congressman Norman Mineta, Chairman of the House Subcommittee on Oversight and Review, Rayburn House Office Building, Room B-375, Washington, D.C. 20515--Attention: Bob Prolman. This should definitely be done before the end of November.

- Your assessment of those factors which most significantly affect the Construction Grants Program's rate of progress. Where possible, specific examples are helpful.

- A description of any Construction Grants Program review and approval functions previously delegated to your state by US EPA under a memorandum of understanding or other administrative mechanism.

- The amount of Section 106 funds that have been made available to your state on an annual basis since 1972 and the amount of those funds for each year which have been spent in implementing and managing Steps 1, 2, and 3 portions of your state program.

- A review and progress report on your experiences in implementing the State Management Assistance Program under Section 205(g) of the Clean Water Act, and your assessment of how long it will be before you have full delegation.

- Your recommendations for streamlining and expediting the program.

STATE OF WEST VIRGINIA
DEPARTMENT OF NATURAL RESOURCES

November 7, 1979

DAVID C. CALLAGHAN
Director

Mr. Norman Mineta, M. C.
Chairman, House Subcommittee on
Oversight and Review
Rayburn House Office Building
Room B-375
Washington, D.C. 20515

Attention: Mr. Bob Prolman

Dear Mr. Mineta:

The following is presented for the record concerning the status of the management of municipal waste treatment facilities under the construction grants program within West Virginia.

The comments will address the questions in the same sequence as presented in the memorandum from the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), a copy of which is enclosed for reference.

1. The prime factor which most significantly impacts the construction grants program in our state is the failure of Congress to appropriate funds to the Environmental Protection Agency (EPA) in the amounts authorized in the Clean Water Act of 1977. These reduced appropriations have cost the state over $45,000,000 in lost funds in FY1979 and FY1980. From our FY80 priority list we will be able to fund only the first 13 of 38 step 3 projects and only 21 of 122 step 1 and step 2 projects.

Further, the switching in the program by EPA from the unit treatment concept to a regional concept and back to the unit concept has caused mass confusion, delays and exhorbitant costs to the program in this state.

Example: In 1974, EPA insisted on a regional study in the Beckley area, requiring a study on the regionalizations of 9 separate projects. Four (4) years later that study (approved by EPA) resulted in only two (2) of those 9 projects being united, with the other 7 going their individual ways as they would have gone in the first place. The interruption to our sewage program in that area, causing delays and rising user charges by EPA was totally unwarranted, plus it provided no pollution abatement to the area for those four years.

63-935 O—80——70

In their efforts to promote innovative and laternative solutions they have forced the program away from the regional concept back to the unit concept where it was in the first place. Further, it is pushing treatment modes back to the septic tank where it was some 30 years ago.

2. There has been no previous delegations of review functions in the construction grant program to this state.

3. The amount of 106 funds used in the construction grant program and broken down into step 1, step 2 and step 3 amounts is unavailable because funding accounts were not established on this basis.

4. A copy of a fact sheet on 205 (g) prepared for the public hearing held on June 5, 1979 still provides a summary of our experiences in attempting to implement the State Management Assistance Program. A copy is enclosed for your use. Full delegation cannot be expected in less than 2 - 3 years.

5. Recommendations for streamlining the program would start with the knowledge that the most effect in streamlining can only come from stabilizing the program. As long as every PGM, PRM, etc. that comes down the pike has to be applied retroactively there will never be stabilization in the program.

If, each time a new PGM or PRM comes out it must be retroactively applied to step 1, step 2 and even step 3 projects, the program slides backwards in time, imposing delays, raising user charges and worst of all - keeping pollution abatement at a standstill. The goal of the program should be results and progress, not backsliding and delays.

The construction grant program is essential, it must be funded at authorized levels and the program must be stabilized.

Sincerely,

WATER RESOURCES DIVISION

David W. Robinson
Chief

DWR/mh

cc: David C. Callaghan, Director

FACT SHEET

FY80 CONSTRUCTION GRANTS PRIORITY LIST

Oct. 1, 1979 - Sept. 30, 1980

| | | |
|---|---|---|
| Construction Grant Funds Available During FY80 | - | $ 64,000,000. (available Oct. 1) |
| | | 60,870,200. (assumed for FY80) |
| | | $124,870,200. (Total) |

Available Funds will be Distributed as follows:

| | | |
|---|---|---|
| $2,700,420. | - | RESERVE for State Management Assistance equal to 2% of FY79 and assumed FY80 allocation. |
| $5,400,840. | - | RESERVE for funding alternative systems in small communities (<3500 population). |
| $2,700,420. | - | RESERVE for additional 10% grant to innovative and alternative projects. |
| $ 500,000. | - | RESERVE for planning a training facility for STP operators. |
| $20,000.000. | - | RESERVE for cost overruns on project. |
| $5,000,000. | - | Allocated for funding Step 1 and Step 2 projects. |
| $88,568,520. | - | Allocated for funding Step 3 projects. |
| $124,870,200. | | |

FY79 Final Priority Listing of Step 3 Projects - Oct. 1, 1979 - Sept. 30, 1980

| Ranking | Project | 75% EPA Grant ($) | Cumulative Amount ($) |
|---|---|---|---|
| 1. | Katewan | 2,205,000. | - |
| 2. | Wolf Creek PSD | 7,425,000. | 9,850,500. |
| 3. | Berkeley County | 16,500,000. | 26,350,500. |
| 4. | Craigsville PSD | 7,320,370. | 33,670,870. |
| 5. | Hurricane | 5,250,000. | 38,920,870. |
| 6. | Shady Springs PSD | 7,896,400. | 46,817,270. |
| 7. | Red Sulphur PSD | 1,702,500. | 48,519,770. |
| 8. | Leadsville PSD | 3,990,000. | 52,509,770. |
| 9. | Charleston | 4,000,000. | 56,509,770. |
| 10. | Parkersburg | 20,399,460. | 76,909,230. |
| 11. | Vienna | 709,520. | 77,618,750. |
| 12. | North Beckley PSD | 4,325,000. | 81,943,750. |
| 13. | Fairmont | 14,189,970. | 96,133,720. |
| 14. | Barracksville | 1,575,000. | 97,708,720. |
| 15. | Whitehall PSD | 1,436,200. | 99,144,920. |
| 16. | Kingmill Valley PSD | 5,278,500. | 104,423,420. |
| 17. | Pine Grove | 2,326,300. | 106,749,720. |
| 18. | Morgantown | 5,126,600. | 111,876,320. |
| 19. | Flatwoods-Canoe Run | 4,653,500. | 116,529,820. |
| 20. | Alderson | 750,000. | 117,279,820. |
| 21. | Armstrong Creek PSD | 2,943,600. | 120,223,420. |
| 22. | Durbin | 1,155,000. | 121,378,420. |
| 23. | Guyan PSD | 3,500,000. | 124,878,420. |
| 24. | Franklin | 3,200,000. | 128,078,420. |
| 25. | Cairo | 3,119,000. | 131,197,420. |
| 26. | South Charleston | 4,477,500. | 135,674,920. |
| 27. | Nitro | 745,500. | 136,420,420. |
| 28. | East View PSD | 1,300,800. | 137,721,220. |
| 29. | Hinton | 2,250,000. | 139,971,220. |
| 30. | Meadow Bridge PSD | 3,303,800. | 143,275,020. |
| 31. | Midland PSD | 3,000,000. | 146,275,020. |
| 32. | Moorefield | 2,713,200. | 148,988,220. |
| 33. | Petersburg | 1,842,000. | 150,830,220. |
| 34. | Deckers Creek PSD | 1,785,000. | 152,615,220. |
| 35. | Beckley Road PSD | 187,500. | 152,802,720. |
| 36. | Glasgow | 1,125,000. | 153,927,720. |
| 37. | Ridgeley | 566,250. | 154,493,970. |
| 38. | Carpendale PSD | 937,500. | 155,431,470. |

Fundable Projects

Non-Fundable Projects

FY80 Final Priority Listing of Step 1 and Step 2 projects: Oct. 1, 1979-Sept. 30, 1980

| Ranking | Project | Step | 75% EPA Grant | Cumulative Amount | |
|---|---|---|---|---|---|
| 1 | Williamson | 2 | 300,000 | - | |
| 2 | Red Jacket PSD | 2 | 120,810 | 420,810 | |
| 3 | Raleigh County PSD | 2 | 900,000 | 1,320,810 | |
| 4 | Doddridge County Commission | 1 | 9,750 | 1,330,560 | |
| 5 | Teays Valley PSD | 1 | 45,000 | 1,375,560 | |
| 6 | Reedy | 2 | 75,000 | 1,450,560 | |
| 7 | Martinsburg | 2 | 186,471 | 1,637,031 | |
| 8 | Thomas | 2 | 123,750 | 1,760,781 | |
| 9 | Jefferson County Commission | 2 | 420,000 | 2,180,781 | |
| 10 | Greater Paw Paw PSD | 2 | 316,500 | 2,497,281 | |
| 11 | Ruthdale PSD | 2 | 124,500 | 2,621,781 | |
| 12 | Beckley | 2 | 412,500 | 3,034,281 | |
| 13 | Hamlin PSD | 2 | 71,250 | 3,105,531 | |
| 14 | Valley Sanitary District | 2 | 223,633 | 3,329,164 | |
| 15 | Red Sulphur PSD | 2 | 75,000 | 3,404,164 | |
| 16 | Glen White-Trap Hill PSD | 2 | 318,750 | 3,722,914 | |
| 17 | Southern Jackson PSD | 1 | 60,000 | 3,782,914 | |
| 18 | Logan County PSD | 2 | 487,500 | 4,270,914 | |
| 19 | Mannington | 2 | 367,500 | 4,637,914 | |
| 20 | Lake Floyd PSD | 2 | 101,030 | 4,738,944 | |
| 21 | Lavalette PSD | 2 | 315,000 | 5,053,944 | Fundable Projects |
| 22 | Danville PSD | 2 | 345,000 | 5,398,944 | Non-Fundable Projects |
| 23 | Elkins | 2 | 97,500 | 5,496,944 | |
| 24 | Tennerton PSD | 2 | 487,500 | 5,983,944 | |
| 25 | Weston | 2 | 114,000 | 6,097,944 | |
| 26 | Ellenboro-Lamberton PSD | 1 | 22,500 | 6,120,444 | |
| 27 | Richwood | 1 | 37,500 | 6,157,944 | |
| 28 | Salem | 2 | 150,000 | 6,307,944 | |
| 29 | North Beckley PSD | 2 | 522,000 | 6,829,944 | |
| 30 | Barrackville | 2 | 231,750 | 7,061,694 | |
| 31 | Barboursville | 1 | 24,750 | 7,086,444 | |
| 32 | Marlaing PSD | 2 | 459,380 | 7,545,824 | |
| 33 | Sissonville PSD | 2 | 562,500 | 8,108,324 | |
| 34 | Frankfort PSD | 1 | 67,500 | 8,175,824 | |
| 35 | Page-Kincaid PSD | 2 | 202,500 | 8,378,324 | |
| 36 | Brooke County PSD | 2 | 737,500 | 9,115,824 | |
| 37 | Hundred | 2 | 135,000 | 9,250,824 | |
| 38 | Cumberland PSD | 2 | 75,000 | 9,325,824 | |
| 39 | Sophia | 2 | 293,250 | 9,519,074 | |
| 40 | Mountain Top PSD | 2 | 120,000 | 9,739,074 | |
| 41 | East River PSD | 2 | 93,750 | 9,832,824 | |
| 42 | Claywood Park PSD | 1 | 58,600 | 9,891,424 | |
| 43 | Grant-Union PSD | 2 | 802,275 | 10,693,699 | |
| 44 | Ansted | 2 | 81,525 | 10,775,224 | |
| 45 | Moundsville | 2 | 408,750 | 11,183,974 | |
| 46 | Summersville | 2 | 93,750 | 11,277,724 | |
| 47 | Bluewell PSD | 1 | 67,200 | 11,344,924 | |
| 48 | Oak Hill | 2 | 255,000 | 11,599,924 | |
| 49 | Bethany | 2 | 37,050 | 11,636,974 | |
| 50 | Green Valley-Glenwood PSD | 2 | 255,000 | 11,891,974 | |
| 51 | Deepwater PSD | 2 | 52,125 | 11,944,099 | |

| Ranking | Project | Step | 75% EPA Grant | Cumulative Amount |
|---|---|---|---|---|
| 52 | Cottageville PSD | 2 | 139,170 | 12,083,269 |
| 53 | Lashmeet PSD | 2 | 270,000 | 12,353,269 |
| 54 | Hancock County PSD | 2 | 1,122,429 | 13,475,698 |
| 55 | Glenville | 1 | 67,500 | 13,543,198 |
| 56 | Bramwell PSD | 2 | 146,250 | 13,689,448 |
| 57 | Buffalo Creek PSD | 1 | 45,000 | 13,734,448 |
| 58 | Milton | 2 | 337,500 | 14,071,948 |
| 59 | Boone-Raleigh PSD | 2 | 317,250 | 14,389,198 |
| 60 | Point Pleasant | 2 | 300,000 | 14,689,198 |
| 61 | Ranger-Harts PSD | 1 | 24,000 | 14,713,190 |
| 62 | Harman | 2 | 102,983 | 14,816,181 |
| 63 | South Charleston | 2 | 348,345 | 15,164,526 |
| 64 | Westover | 2 | 88,650 | 15,253,176 |
| 65 | Dunbar | 2 | 142,500 | 15,395,676 |
| 66 | Coalton | 2 | 101,425 | 15,497,101 |
| 67 | Littleton | 2 | 108,000 | 15,605,101 |
| 68 | Matoaka | 1 | 37,500 | 15,642,601 |
| 69 | Nitro | 2 | 61,200 | 15,703,801 |
| 70 | Layopolis | 2 | 56,625 | 15,760,426 |
| 71 | Logan | 2 | 225,000 | 15,985,426 |
| 72 | Union-Williams PSD | 2 | 178,200 | 16,163,626 |
| 73 | Grant County PSD | 2 | 202,500 | 16,366,126 |
| 74 | Procious PSD | 1 | 30,000 | 16,396,126 |
| 75 | Man | 1 | 60,000 | 16,456,126 |
| 76 | Pea Ridge PSD | 1 | 45,000 | 16,501,126 |
| 77 | Coal River PSD | 2 | 390,825 | 16,891,951 |
| 78 | Kenova | 1 | 22,500 | 16,914,451 |
| 79 | Chelyan PSD | 2 | 731,250 | 17,645,701 |
| 80 | Marshall County Sewer District | 1 | 31,875 | 17,677,576 |
| 81 | Salt Rock PSD | 1 | 45,000 | 17,722,576 |
| 82 | Grafton | 2 | 225,000 | 17,947,576 |
| 83 | Chester | 2 | 134,625 | 18,082,201 |
| 84 | Fayetteville | 2 | 210,000 | 18,292,201 |
| 85 | Branchland-Midkiff PSD | 2 | 217,875 | 18,510,076 |
| 86 | Philippi | 2 | 74,299 | 18,584,375 |
| 87 | Buffalo | 2 | 135,750 | 18,720,125 |
| 88 | London PSD | 2 | 91,500 | 18,811,625 |
| 89 | Williamstown | 2 | 22,500 | 18,834,125 |
| 90 | Montgomery | 2 | 104,140 | 18,938,265 |
| 91 | Center PSD | 2 | 75,000 | 19,013,265 |
| 92 | Chesapeake | 2 | 38,000 | 19,051,265 |
| 93 | Poca | 2 | 117,750 | 19,169,015 |
| 94 | Ravenswood | 1 | 30,000 | 19,199,015 |
| 95 | Winfield | 2 | 144,000 | 19,343,015 |
| 96 | Marmet | 2 | 135,000 | 19,478,015 |
| 97 | Sistersville | 2 | 195,000 | 19,673,015 |
| 98 | Follansbee | 2 | 93,675 | 19,766,690 |
| 99 | Riverbend PSD | 2 | 85,275 | 19,851,965 |
| 100 | Parsons | 2 | 145,350 | 19,997,315 |
| 101 | Belington | 2 | 56,616 | 20,053,931 |
| 102 | Lumberport | 2 | 140,400 | 20,194,331 |
| 103 | New Cumberland | 2 | 638,500 | 20,832,831 |
| 104 | Granville | 2 | 55,000 | 20,887,831 |
| 105 | Maurick PSD | 2 | 98,250 | 20,986,081 |
| 106 | Spring Valley PSD | 2 | 60,000 | 21,046,081 |
| 107 | Ceredo | 1 | 22,500 | 21,068,581 |
| 108 | Monongah | 2 | 423,750 | 21,492,331 |

| Ranking | Project | Step | 75% EPA Grant | Cumulative Amount |
|---|---|---|---|---|
| 109 | Pratt | 2 | 157,500 | 21,649,831 |
| 110 | Friendly PSD | 2 | 157,500 | 21,807,331 |
| 111 | Marshall County Sewer District | 2 | 276,272 | 22,083,603 |
| 112 | East Bank | 2 | 78,000 | 22,161,603 |
| 113 | Handley | 2 | 60,000 | 22,221,603 |
| 114 | White Sulphur Springs | 2 | 187,500 | 22,409,103 |
| 115 | Beckley Road PSD | 2 | 22,500 | 22,431,603 |
| 116 | Fairview PSD | 2 | 56,250 | 22,487,853 |
| 117 | Midway PSD | 2 | 86,063 | 22,573,916 |
| 118 | Clay | 1 | 22,500 | 22,596,416 |
| 119 | Paint Creek PSD | 2 | 224,550 | 22,820,966 |
| 120 | Arborland Acres PSD | 2 | 8,430 | 22,829,396 |
| 121 | Fort Gay | 2 | 89,700 | 22,919,096 |
| 122 | Elk Garden | 2 | 55,575 | 22,974,671 |

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Anthony S. Earl
Secretary

BOX 7921
MADISON, WISCONSIN 53707

8700

November 26, 1979

IN REPLY REFER TO: _____

Honorable Norman Y. Minita, Chairman
Subcommittee on Oversight and Review
House Public Works and Transportation
Room 375-Rayburn House Office Bldg.
Washington, D.C. 20515

Attn: Bob Prolman

My Dear Congressman Minita:

I am enclosing for the use of the subcommittee, responses to the series of questions posed for the States at your most recent oversight hearings and the U.S. EPA Municipal Wastewater Construction Grants Program.

We would be most happy to discuss further with your staff the background of these responses and our views on the current management of the Construction Grants Program.

Sincerely,

Paul N. Guthrie, Jr.
Director, Office of Intergovernmental Programs

PNG:ps

Attachment

THIS IS 100% RECYCLED PAPER

The Wisconsin Department of Natural Resources lists the following factors which have significantly affected the Construction Grants Program's rate of progress:

1. Many communities, especially those in the process of obtaining facilities planning grants, were caught in the changing of grant regulations included in the 1977 Amendments to the Clean Water Act and, as a result, major time delays are being encountered. Significant delays of up to a year or more were experienced as prime energy, alternative/innovative technology, and recreation/open space requirements were sluggishly implemented by U.S. EPA.

2. The AWT/AST issue proves to be a case in point of a reasonably simple thought turned into unreasonably excessive delay. An analysis of the incremental costs associated with costly AWT projects has resulted in excessive review time in Region V (already with staffing problems) and EPA Headquarters in Washington. Unclear guidance on the specifics of adequate state justification for AWT projects, has led to multiple contacts and has added to the problem of re-opening approved facilities plans and has led to project delays of up to 12 months in duration.

   An outgrowth of the AWT/AST issue has been a radical diversion from the goals and objectives of P.L. 92-500. Instead of talking in terms of water quality which reflects fishable and swimmable standards, with effluent limits established to meet this criteria, the AWT issue has turned the EPA to the concepts of "beneficial use" and "significant user benefits." Consequently, water quality standards have been tipped upside down with a new EPA emphasis on effluent limits which reflect significant, economic benefits rather than fishable, swimmable objectives of the Clean Water Act. The Wisconsin Department of Natural Resources believes that it will take a significant amount of time to recover from this offshoot of the AWT/AST issue.

3. A failure to anticipate changes in grant regulations related to upcoming critical program deadlines shows a general EPA willingness to wait until issues surface before preparing for or dealing with them. The June 30 deadline for progress made toward the establishment of a pre-treatment program after which a Step 2 award will not be made, is an example.

4. The WDNR believes that a general lack of EPA concern exists related to project delays that have and presently do occur as program requirements change. There seems to be an overwhelming concern for minute detail which effectively offsets attainment of overall program goals. The lack of management concerns for costs associated with delay is glaring.

5. A general EPA resistance toward "letting go" of those functions delegated to states is resulting in unnecessary re-reviews of grant materials. Unnessary questioning of insignificant items leads to a reopening of the entire review process.

6. A general lack of direction and communication exists between EPA managers and staff that is reflected in the difficulty with which EPA priorities are set, the problem of guidance to the states, and the inability to respond to program questions in a timely manner.

The WDNR had previously been delegated partial review authority for plans and specifications, bidding documents, and Operation & Maintenance Manuals. This previous delegation has been superseded with the signing of the present agreement in October of 1978.

The WDNR successfully completed a comprehensive Organization and Resource Analysis in order to effectively meet the increased Program authority with appropriate staffing levels. With this success, responsive negotiations with EPA on the Agreement, and successful implementation of bidding document and change order delegated authority, the positive progress experienced in implementing SMAC ends.

The delegation agreement has not significantly cut review time by eliminating a duplicative review process. The backlog of WDNR-approved applications and facilities plans at EPA, despite delegated authority and stringent WDNR review, has increased rather than decreased the time required to process same project documents. These delays are largely due to the resistance noted in item #5.

Despite delegated review and approval authority for Step 1 applications and amendments, the current AWT/AST issue has also acted to offset the advantages of a state-managed Construction Grants Program. The WDNR believes that, until such time as the state is given more authority for AWT/AST, procedural interpretation, and the Program begins to settle in terms of the number of new regulations, there will never be a fully delegated program. In light of this, the best that can ever be achieved, given the continuation of present EPA attitudes, will be a close facsimile of quasi-delegation with token authority to states for review and approval.

HENRY J. NOWAK
[illegible]

COMMITTEE:
PUBLIC WORKS AND
TRANSPORTATION
SMALL BUSINESS

**Congress of the United States**
**House of Representatives**
**Washington, D.C. 20515**

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November 26, 1979

Honorable Douglas M. Costle
Administrator
U. S. Environmental Protection Agency
401 M Street, S.W.
Washington, D. C. 20460

Dear Administrator Costle:

I am writing to express my concern that current EPA policy for funding multi-purpose projects may impede the implementation of water pollution cleanup and public health remedial measures being planned in the City of Buffalo, and that this policy may result in the imposition of very substantial cost burdens on Buffalo area residents as well.

As you may be aware, a step I facilities plan for an interceptor-relief sewer for Hertel Avenue in Buffalo has recently been completed. The plan, which is under final review by the New York State Department of Environmental Conservation (DEC), sets forth what the EPA classifies as a multi-purpose project, since it will both convey sewage and alleviate periodic hydraulic overloads of the existing combined stormwater-sanitary sewer system.

It is my understanding that the State DEC supports this project, particularly because it will eliminate the public health nuisance caused by the sewer backups in area homes and they expect to certify this plan to the EPA New York regional office in the next several weeks.

The preliminary cost estimate for this project is approximately $100 million. I have been informed that under EPA's current multi-purpose project funding policy, only $39 million in federal grant assistance would be available. This determination will also limit the amount of 12.5 percent state aid which can be made available because state law restricts grant eligibility to that amount determined to be eligible for federal grant assistance. With the addition of certain other costs which are not normally eligible for federal assistance, such as acquiring rights of way and financing construction costs, the net amount of grant assistance to Buffalo for this project amounts to only 28 percent.

As you know, the 1978 Needs Survey estimates the national costs for combined sewer overflow projects at $25.7 billion and that 12 percent of that amount is in New York State. New York DEC officials have included CSO projects on the fundable portion of their State priority list because of their severity and importance. This also reflects the State's determination that such projects provide substantial improvement in water quality and public health benefits and, as such, represent a very cost-effective investment of pollution control funds.

I am very much aware that water pollution needs far exceed available resources and that there is increasingly a desire to allocate these scarce pollution control dollars on a highly selective basis based upon national policy. I am equally concerned, however, that current EPA national policies may impede and possibly preclude the most cost-effective solution to the Buffalo area's public health and water pollution needs.

In July of this year, EPA proposed several alternative policies for funding multi-purpose projects, certain of which would be of greater benefit to Buffalo than the existing policy. Yet to my knowledge, the EPA has yet to make a determination of the need for, and selection of a new policy for funding these projects.

You also noted in the attachments to your statement before the Subcommittee on Oversight and Review on November 1, 1979, that the EPA has been working on a new funding policy for over a year. The brief description included in the attachment highlights the seven different options that were proposed in July. However, no mention is made of Combined Sewer Overflow projects. Nor is any mention made as to having received any comments on the proposals from urban areas with CSO problems.

In your statement to the Oversight Subcommittee, you also note that "EPA estimates the nation's total municipal wastewater treatment requirements at $106 billion...and estimates the federal share at $80 billion, 75% of the total. The total, I assume, includes the $25.7 billion in CSO correction needs, as mentioned above, as does your estimate of the federal share of $80 billion. Yet, the limited funding which may be available to the Hertel Avenue project implies that you are administratively limiting the actual grant amounts to such projects to less than 75 percent.

Administrator Costle
Page Three
November 26, 1979

I am sure that we are both concerned about the same overall objective --- the well-being of the nation's citizens and the quality of the nation's waters. For this reason, I will appreciate your advising me as to the following:

1. When do you expect to determine if a new multi-purpose funding policy is necessary and how are you taking public health factors, such as those that occur in the Hertel Avenue project, into account?

2. Does the calculation of total costs for the Hertel Avenue project differ from the calculation of total costs included in the 1978 Needs Survey estimate of $25.7 billion for CSO projects?

3. How was the federal share of those projects included in the 1978 Needs Survey estimate of Category V needs, determined, and how does this compare with the criteria used to determine federally eligible costs in the Hertel Avenue project?

4. Is there need for clarification of Congressional policy and intent with respect to the funding of multi-purpose projects? If so, what are the specific issues that must be addressed?

I would like to have this matter made a part of the record of the recent water pollution hearings conducted by the Public Works and Transportation Committee's Subcommittee on Oversight and Review, of which I am a member. For this reason, I will appreciate your reply to these questions at your earliest opportunity.

Sincerely yours,

HENRY J. NOWAK
Member of Congress

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 15 1980

OFFICE OF WATER AND
HAZARDOUS MATERIALS

Honorable Henry J. Nowak
House of Representatives
Washington, D.C. 20515

Dear Mr. Nowak:

Thank you for your letter of November 26, 1979, regarding the facilities plan for Hertel Avenue in Buffalo. The Administrator has asked me to reply.

You expressed concern that, of the $100 million preliminary cost estimate for this project, only $39 million in grant assistance would be available under the Environmental Protection Agency's (EPA's) current funding policy for multiple-purpose projects.

EPA's regional office in New York City has received the Hertel Avenue facility plan for review. The plan includes a preliminary estimate of eligible costs. EPA's determination of eligibility, based upon detailed review of the facility plan, is expected by March 1, 1980.

The Hertel Avenue Project is only a small portion of the total combined sewer overflow (CSO) area in the urbanized Buffalo area. Facility planning for the entire urbanized area is now underway. EPA's 1978 Needs Survey estimated CSO control for the area would cost $367 million. The Needs Survey estimate was based on a methodology emphasizing storage and treatment of CSO. We anticipate that the area-wide facility plan will consider this alternative as well as others.

Poor urban drainage due to inadequate conveyance capacity in combined sewers sometimes results in potential public health problems. Public health and urban drainage problems are thus intertwined. If the local drainage problem is solved, the possible public health problem related to drainage is also solved. EPA's construction grants program is focused on improving the quality of waters in the United States, not on solving drainage problems which are usually a local responsibility. Thus, the 1978 Needs Survey did not include costs for drainage. The costs included in the Needs Survey are for the protection of waters of the United States.

EPA's policy for multiple-purpose projects, including those designed to improve drainage as well as control pollution, requires that costs be allocated between the eligible purpose of pollution control and other ineligible purposes such as reducing street and basement flooding. Specific discussion of these policies relative to the Hertel Avenue project will be addressed in the detailed review by our regional office in New York.

The remaining questions you raised in your letter are answered below:

(1) "When do you expect to determine if a new multi-purpose funding policy is necessary and how are you taking public health factors, such as those that occur in the Hertel Avenue project, into account?"

We will issue a revised policy on multiple-purpose project funding soon. I would note, however, that none of the options considered in developing the revised policy would let EPA fund more than the cost of the cost-effective single-purpose project for control of pollutant discharges to waters of the United States. Therefore, our final decision will have little, if any, impact on funding eligibility of the Hertel Avenue project.

(2) "Does the calculation of total costs for the Hertel Avenue project differ from the calculation of total costs included in the 1978 Needs Survey estimate of $25.7 billion for CSO projects?"

The Hertel Avenue Project undoubtedly has a major drainage component, whereas the 1978 Needs Survey does not include costs for drainage. Therefore, the costs in the survey attributable to the Hertel Avenue Project are probably considerably less than $100 million. However, the survey utilized a detailed model to estimate eligible costs. We applied the model to the Buffalo combined sewer area as a whole and not to smaller areas such as that served by the Hertel Avenue project. Separating out such small area costs in the Needs Survey estimates would not be practical.

(3) "How was the federal share of those projects included in the 1978 Needs Survey estimate of Category V needs determined and how does this compare with the criteria used to determine federally eligible costs in the Hertel Avenue project?"

The Needs Survey model for the Buffalo CSO area determines eligible costs on the basis of a storage/treatment control strategy to protect waters in the vicinity. The Federal funding share would normally be 75 percent of the total eligible costs, for planning, design and construction of the cost-effective CSO project.

(4) "Is there need for clarification of Congressional policy and intent with respect to the funding of multi-purpose projects? If so, what are specific issues that must be addressed?"

The Environmental Protection Agency will continue to interpret the Clean Water Act to allow grant eligibility principally for costs allowable to control pollutant discharges of municipal sewage to waters of the United States. Clarification would be required only if Congress advises EPA that multiple-purpose projects should be funded in a more liberal manner. Specific issues which could be addressed are eligibility and funding. These and other issues are discussed in "Strategies for Funding Multiple Purpose Projects," which you have, and "Report to Congress on Control of Combined Sewer Overflow in the United States," which is enclosed for your information.

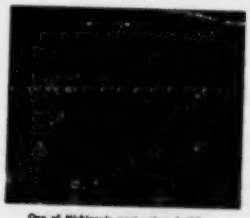
Thank you for your continuing interest in our Construction Grants Program. If I may be of further assistance, please let me know.

Sincerely yours,

Acting Assistant Administrator
for Water and Waste Management (WH 556)

Enclosure

cc: Dan Forger
Region II



One of Michigan's most unique buildings, James Oliver Curwood's Castle, located in Owosso.

# Owosso

*A City with Tradition, Charm and Sparkling Vitality*

CITY HALL • OWOSSO, MICHIGAN 48867 • TELEPHONE 723-5221

November 28, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
ATTN: Robert Prolman
B376 Rayburn House Office Building
Washington, D.C. 20515

Ladies and Gentlemen:

"We request that this letter be included in the record of the recent hearings on the E.P.A. Construction Grants Program."

During the summer of 1966 the Michigan Department of Natural Resources conducted an intensive study on the Shiawassee River. The survey revealed a dissolved oxygen "sag" to less than 1 mg/l at low flows in the river below the Owosso primary waste-water treatment plant, clearly violating water quality standards.

Prior to receiving the results of the study (not published until October, 1968) the city engaged a consultatnt to report on Water and Sewer needs for the City of Owosso and the mid-county area. Their report recommended secondary treatment facilities for the Mid-County area. Construction costs for a 5.12 MGD secondary treatment facility were estimated at $1.4 Million.

The City applied for Federal and State grant participation in 1967, in 1968, in 1969, in 1970, in 1971, in 1972 and again in 1973 before attaining a high enough priority to receive consideration. The City had commissioned the engineering design work so that plans and specifications were ready for bid in November 1970. The plans called for a 6 MGD advanced wastewater plant to meet tertiary treatment requirements defined by the State. Construction costs for the plant were estimated at $4.0 Million dollars.

Then in 1973 regulatory reviews and regulations resulted in further delays as outlined on the attached "Owosso Chronology".

The plans were updated in 1975 and a grant agreement was signed for participation in construction costs then estimated at $9.7 Million. Bids were opened on May 5, 1975 with a low bid of $10.5 Million.

However, a citizens group brought suit against the EPA and Michigan DNR alleging proper procedures has not been followed in evaluating and appriving the selection of a physical-chemical treatment system. The citizens group favored an on land treatment system.

Due to the suit, the City was forced to reject all bids. The suit was dismissed from U. S. District Court but appealled to the U. S. Court of Appeals. That court found in favor of the EPA and DNR, but the project was delayed a full three years until bids were retaken and a contract finally awarded in June 1978. Since then construction has prodeeded smoothly.

The low bid was for $11,773,000 or approximately 800% greater than the cost first estimated in 1966, or almost a 300% increase over the 1970 cost estimate after plans and specifications were prepared.

This is but the briefest summary of some of the multitude of factors which resulted in a 12 year time period to get a municipal water pollution control facility under construction. The increased construction costs is only a part of the costs due to these delays. Environmental damage to the Shiawassee River from Owosso's primary effluent has continued unabated. Social and economic costs were incurred through building restrictions. Consultant fees, legal fees, and City, State and Federal staff time greatly exceeded normal costs due to these delays.

Though the problems were muti-faceted, the root cause lies with the Federal Construction Grants Program. The City had recognized responsibility to clean up the wastewater discharge prior to any order from the State or EPA, and has conscientiously pursued this goal.

However, the availability of federal financing was too great an attraction to bypass. So rather than cleaning up its act, the City waited and waited for Federal financing. Then when it became seemingly available, the City fought through the rules and regulations to meet the grant requirements.

Further, because of federal grant availability the state has been able to impose costly tertiary treatment requirements which, in our opinion, are not justified by actual stream conditions. These tertiary requirements have pushed project costs beyond what the City could afford on its own.

In summary from the "Owosso Experience" we have learned that the federal "carrot" (grants) has been an illussory incentive. If the "Owosso Experience" is at all typical, the grants program should never have been instituted and should be disbanded. In its place we would support the "stick" approach toward municipalities similar to that used on industry. Set a timetable, require the necessary cleanup, and, if financial aid

is necessary, utilize after the fact tax breaks to users.

We have not mysteriously created more capital by taxing it out of Owosso, generating a massive and ongoing construction grants bureaucracy and then returning a portion to Owosso to pay for a more costly facility due to delays and Federal requirements. We are rather wasting a very large portion of that valuable capital resource. Leave it on the local level and it will be more wisely invested and in a more timely manner probided the enforcement aspect is maintained.

The way to "untangle municipal projects" is for the states and EPA to concentrate on surviellance, monitoring, standards, and enforcement. Leave the financial aspects to the IRS by replacing the construction grants program with one of tax breaks, credits, or rebates to users or to the municipality to help offset the costs of pollution control.

Sincerely yours,

Gary M. Burk

Gary M. Burk
Owosso WWTP Superintendent

GMB/kw

Attachment

OWOSSO CHRONOLOGY

| | |
|---|---|
| FY 1973 | First year Owosso was high enough to be reachable on the project list. |
| 11/29/72 | Meeting with officials of 4 local units of government, Environmental Protection Agency (EPA) and Water Resources Commission (WRC) to discuss and resolve any remaining problems regarding implementing the regional system. |
| 5/11/73 | New Environmental Assessment requirements received from EPA were sent to the City. The major change was the requirement for a public hearing. |
| 5/31/73 | Meeting with the City, EPA and WRC to discuss any deficiencies so as to expedite grant offer. |
| 6/13/73 | WRC certified grant application to EPA. |
| 6/25/73 | First Public Hearing. |
| 6/29/73 | WRC sent copies of contracts for service between local units to EPA. |
| 7/20/73 | Adamkus letter to Representative Trezise saying a grant offer could not be made because:<br>1. Contracts were not satisfactory.<br>2. There were questions regarding the adequacy of the public hearings.<br>3. All grants made after 7/1/73 must do an infiltration-inflow study. |
| 7/26/73 | Meeting with EPA Washington and Chicago, City and WRC. EPA asked for more information and for data on land disposal. |
| 8/1/73 | EPA returned priority certification because contracts between local units were based upon receipt of grants by outlying areas for interceptor and collecting sewers. Retained application et al for future use when the Townships could be certified for grants. |
| 8/6/73 | Mayo's letter to Representative Trezise stating that he hopes EPA could fund the City project during FY 1974 when all the necessary projects could be certified to EPA. |
| 11/7/73 | Meeting with local units of government, EPA and WRC to review deficiencies in FY 1974 applications. |
| 12/11/73 | Signed contracts sent to EPA for review. |

| | |
|---|---|
| 12/28/73 | Sent new grant application forms to local units of government to complete. |
| 2/25/74 | WRC certified City's grant application to EPA. |
| 3/6/74 | EPA letter with review of contracts received. |
| 3/26/74 | WRC certified Township grant application to EPA. |
| 4/18/74 | Questionnaire for Wage Rate information sent to City. |
| 4/25/74 | City supplied Wage Rate information to EPA. |
| 6/6/74 | Letter from EPA questioning the appropriateness of separate Step 1 applications. |
| 6/13/74 | Chicago meeting between EPA and WRC to discuss deficiencies in grant applications with Mayo. EPA asked for letter listing material that comprises a facilities plan. |
| 6/21/74 | Responded to EPA with listing of materials comprising a facility plan. |
| 6/21/74 | EPA wrote listing deficiencies in the facilities plan. |
| 6/24/74 | New A-95 review sent to EPA. Required because other review was too old. |
| 7/18/74 | EPA wrote listing deficiencies in the Environmental Assessment. |
| 7/25/74 | EPA wrote after reviewing materials comprising the facilities plan and listed additional deficiencies. |
| 7/31/74 | NPDES Permit received. |
| 8/1/74 | WRC wrote to City summarizing deficiencies in the facilities plan. |
| 10/74 | New Environmental Assessment published. |
| 11/25/74 | Public Hearing held on new Assessment. |
| 1/21/75 | Negative Declaration on Environmental Assessment issued by EPA. |
| 2/13/75 | Grant applications approved. |

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|---|---|---|
| Feb | 1975 | EPA entered into grant agreement with Owosso for 75% of approved costs up to $8.8 million to construct a physical/chemical wastewater treatment plant. |
| | | Construction Cost Estimated At: $9.7 million |
| Mar | 1975 | Invitation to bid issued for construction of the proposed physical/chemical treatment facility by the City of Owosso. |
| Mar | 1975 | Suit filed against MDNR and EPA in U.S. District Court Eastern District of Michigan on behalf of Concerned Citizens to halt procedures allegeing proper procedures had not been followed in finding physical/chemical treatment the best alternative. |
| May | 1975 | Bids received and tentatively awarded for construction of Owosso plant. |
| | | Bid Amount $10.5 million |
| Fall | 1975 | Due to delays in civil action all bids rejected by City. |
| Jan | 1976 | Dismissal of suit with prejudice by U.S. District Court in favor of EPA and State. |
| About Apr | 1976 | Appeal filed in U.S. District Court of Appeals for the Sixth Circuit on behalf of Concerned Citizens Group. |
| Nov | 1976 | Owosso requested deviation to permit delay in start-up of construction. |
| Jan | 1977 | Favorable response issued to Owosso's request deferring start-up until Oct. 1977. |
| About June | 1977 | Judgement from U.S. Court of Appeals issued in favor of EPA and the State. |
| July | 1977 | Request from Tom Jorling, Assistant Administrator for Water and Hazardous Materials, for Review of Owosso's Wastewater Treatment Facilities Planning. |

| | | |
|---|---|---|
| July | 1977 | Revised cost estimated issued for physical/chemical plant construction and operation. |
| | | Construction Cost Estimated At: $13.4 million |
| July - Aug | 1977 | Review conducted. |
| Mid-Aug | 1977 | Letters from Owosso to EPA requesting additional time to update plans and specifications and to begin construction in the spring. |
| Oct | 1977 | Draft Report to Tom Jorling in response to July 1977 review request. Conclusions were that "It could not be demonstrated that land treatment would have a clear cost effective advantage over physical/chemical treatment if the analysis were based upon more optimum assumptions for a land treatment system and updated to account for present conditions. |
| Jan | 1978 | Extension of deviation issued by EPA and notification construction must be underway no later than July 1, 1978. |
| Feb | 1978 | Grant increase to $11.8 million due to miscellaneous revisions and updated construction costs of $13.4 million. |
| March | 1978 | Project advertised. |
| May | 1978 | Bids received at $11,773,000. |
| June | 1978 | Grant decreased to $9.95 million due to favorable bids. |
| June | 1978 | Contract awarded at bid price. |
| June 30 | 1978 | Construction commences. |

# VILLAGE OF CASS CITY

CASS CITY, MICHIGAN 48726
517-872-2911

November 26, 1979

The Honorable Norman Mineta
Chairman SubCommittee on Oversight & Review
B376 Rayburn House Official Building
Washington D.C. 20515

Attention: Robert Prolman

Dear Mr. Mineta:

I request that this letter be included in the record of the recent hearings on the EPA Construction Grants Program.

I am pleased that you are holding oversight hearings and hope that, in a small way, our participation in the Consulting Engineers Council (CEC) "Operation PUMP" has helped bring about this action. Since the Village was an active participant in the "PUMP" program, it seems appropriate to advise your committee of the status of our project. Attached is an update of the project history along with the project history included in the "PUMP" presentation.

You will note that the last item on the project history is our long sought Step 3 grant offer from EPA. The Village is pleased to receive the grant offer and is appreciative of the efforts of the staff members of the Water Quality Division of the Michigan Department of Natural Resources, our Consulting Engineers, our Village Superintendent, Congressman Bob Traxler, and others including EPA personnel who assisted us in expediting the award of our grant.

Despite these efforts, it took nearly fourteen months to obtain the grant.

We hope that your hearings will result in improvements in administration of the Construction Grants Program that will minimize for other grantees the frustration and costly delays the Village has experienced.

Very truly yours,

Lambert Althaver
Village President

cc: Michigan DNR, Mr. Richard Hinshon
Hubbell, Roth & Clark, Inc.
Congressman Bob Traxler

VILLAGE OF CASS CITY
C 26 2750

PROJECT HISTORY UPDATE

| | |
|---|---|
| 7/9/79 | DNR certifies to EPA the Step 2 Grant Amendment |
| 7/27/79 | Village receives Step 2 Grant Amendment for preparation of User Charge System (USC), Industrial Cost Recovery System (ICRS) and Sewer Use Ordinance. |
| 8/24/79 | Village submits UCS, ICRS, and Sewer Use Ordinance to EPA. |
| 9/13/79 | EPA advises DNR that EPA doesn't believe DNR's river study was adequate. EPA requests "Sensitivity Analysis." |
| 9/20.79 | DNR staff advises Michigan Water Resources Commission (WRC) of problems with Cass City project. |
| 10/2/79 | EPA advises Village that UCS, ICRS, and Sewer Use Ordinance are approved. |
| 10/8/79 | DNR advises Honorable Loren S. Armbruster of Michigan House of Representatives of status of project. |
| 10/15/79 | DNR urges EPA to certify project to avoid further delays and cost increase. |
| 11/12/79 | HRC (Consulting Engineers) request amendment to contract for engineering services to allow for additional estimated cost and fixed fee resulting from the delays encountered on the project. |
| 11/19/79 | Village received Step 3 Grant Offer |

Village of Cass City
C 26 2750

PROJECT HISTORY (Continued)

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|---|---|
| 1/16/79 | Corps of Engineers holds onsite biddability and construction review. |
| 1/24/79 | HRC sent additional information requested by DNR on 12/28/78. |
| 2/20/79 | Farmers Home Administration gives preliminary approval to $1,250,000, 5%, 40 year loan subject to receipt of Step 3 grant by September 30, 1979. |
| 3/13/79 | Special election held for the purpose of authorizing the Village to authorize $1,200,000 in G. O. bonds to pay the local share of project. Authorization given by a 4 to 1 margin. |
| 3/14/79 | DNR notified by Michigan History Division that archaeological survey will not be necessary. |
| 3/27/79 | DNR advises HRC of Corps of Engineers comments on biddability and constructability. |
| 3/28/79 | HRC returns final P & S to DNR. |
| 4/13/79 | DNR forwards Step 3 grant request to EPA and issues construction permit. |
| 4/16/79 | DNR approves P & S and forwards same to EPA. |
| 5/22/79 | DNR sends EPA advanced wastewater treatment (AWT) review check list and supporting documentation. |
| 6/11/79 | DNR sends EPA additional information justifying advanced wastewater treatment (AWT) process for Village. |
| 6/19/79 | EPA advises HRC that Cass City project will go to committee on 6/19/79 and that everything appears to be in order. |
| 6/27/79 | EPA advises HRC that the DNR will have to furnish additional data to justify AWT. |
| 6/29/79 | Village requests Step 2 grant amendment to cover cost of preparing User Charge and Industrial Cost Recovery System. This step "backward" necessitated by EPAs not certifying Step 3 grant amendment prior to June 30, 1979. After this date Step 3 grants can't be made unless the grantee has obtained the prior approval of user charge and industrial cost recovery sytem. |

Village of Cass City
C 26 2750

PROJECT HISTORY

| | |
|---|---|
| 6/28/74 | Water Resources Commission issues NPDES Permit |
| 10/17/75 | Application for Step 1 Grant |
| 1/30/76 | Step 1 Grant approved. |
| 5/6/76 | Draft Facilities Plan submitted to DNR. |
| 5/27/76 | Received comments from Planning. |
| 7/30/76 | Received comments from Engineering. |
| 9/28/76 | Public Hearing |
| 11/16/76 | Village approved Facilities Plan. |
| 11/29/76 | Facilities Plan submitted to DNR. |
| 12/15/76 | Step 2 Grant Amendment requested from DNR. |
| 2/16/77 | DNR certified Facilities Plan to EPA. |
| 3/2/77 | DNR forwarded Step 2 Grant Amendment request to EPA. |
| 3/31/77 | Wesley advised of need for letter of intent. |
| 4/1/77 | Revised copies of EPA-5700-41 Form sent to EPA. |
| 5/1/77 +/- | EPA informed HRC Negative Declaration issued. |
| 5/20/77 | Received letter of intent from Wesley. |
| 5/27/77 | Advised by EPA that Negative Declaration not issued. |
| 6/24/77 | Water Resources Commission enters Final Order of Determination and issues NPDES Permit. |
| 8/5/77 | EPA Step 2 Grant offer |
| 8/18/77 | State Step 2 Grant Offer |
| 8/11/78 | Final Plans and Specifications (P & S) submitted to DNR. |
| 9/21/78 | Step 3 Grant Amendment requested from DNR. |
| 11/7/78 | EPA issues Interim Procedures for Review of Projects more Stringent than Secondary (AWT) |
| 12/78 | Final Settling Tank "floats" and must be taken out of service. |
| 12/22/78 | DNR transmits P & S to U.S. Army Corps of Engineers for review for "biddability and constructability." |
| 12/28/78 | DNR requests additional information relative to Step 3 grant application. |

CITY OF OMAHA

AL VEYS
Mayor

SUITE 300 • OMAHA/DOUGLAS CIVIC CENTER
1819 FARNAM STREET • OMAHA, NEBRASKA 68102 • 402/444-5001

November 8, 1979

Chairman Norman Y. Mineta
Subcommittee on Oversight and Review
Committee on Public Works and Transportation
B-376 Rayburn Building
Washington, D. C. 20515

Attention: Mr. Robert Proiman

Dear Mr. Proiman:

Attached is a Status Report of Construction Funding and Scheduling for Secondary Treatment for the City of Omaha, Nebraska.

The attached report reflects the problems and our concerns with respect to funding of the City of Omaha's Wastewater Treatment Program.

Very truly yours,

Al Veys
MAYOR

AV:s
cc: John Mussman
Legislative Assistant
Senator Edward Zorinsky
432 Russell Building
Washington, D.C. 20510

# STATUS REPORT
# OF
# CONSTRUCTION FUNDING AND SCHEDULING FOR SECONDARY TREATMENT

## CITY OF OMAHA

Currently, there exists a Federally mandated deadline of 1983 for completion of secondary wastewater treatment at existing treatment plants. To meet this deadline, the City of Omaha undertook a very aggressive construction program at both the Missouri River and Papillion Creek Wastewater Treatment Plants. Both plants are recognized as regional plants serving the Omaha-Metropolitan Area including various cities and subdivisions in both Douglas and Sarpy Counties.

At present, both plants have primary treatment capabilities. Secondary treatment plants have been designed for both of these facilities and are currently awaiting funding for construction. It is expected that construction on the secondary phase of the Missouri River Plant will commence shortly. Estimates for construction of this phase are presently 60 million dollars.

The dilemma facing the Metropolitan Area is that, assuming construction of this phase starts immediately, at the current rate of Federal funding of 8 million dollars annually (which is set by Administrative Policy of the State of Nebraska), the Metropolitan Area will not complete the secondary phase at the Missouri River Plant until 1983 or 1984. The State and Federal regulatory agencies have stipulated that no construction shall commence on the secondary phase of the Papillion Creek Plant, estimated at 51 million dollars, until the Missouri River Plant is complete. This means that no monies will be available for providing secondary facilities at the Papillion Creek Plant until 1984 with currently programmed State allocations.

The present trend of Congress to reduce funding levels for waste treatment construction coupled with "current inflation rate of 13% places Omaha in the position of receiving 8 million Federal dollars for construction of secondary treatment facilities while inflation takes approximately 13 million dollars annually based on estimated construction programs exceeding $100 million for the City's two regional treatment plants."

Of the anticipated 1978 Needs Survey of Nebraska Cities prepared by the State of Nebraska and submitted to the United States EPA, 62% of Category 1, which was for waste treatment plant construction, was for the City of Omaha and surrounding areas yet the Omaha Metropolitan Area is currently receiving only 30% of the construction funds coming into the State. In addition the Nebraska DEC has arbitrarily removed the Papillion Creek Wastewater Treatment Plant from the current approved State priority list for plant construction through 1984. This is despite the fact that the plant's construction needs were included in all recent Federal Needs Surveys. Under Federal rules and regulations, construction projects not on the State priority list are not eligible for Federal construction grants.

In an attempt to ameliorate this situation, the City of Omaha sought after and received a 4.7 million dollar Local Public Works Grant for the construction of the first phase of the proposed secondary expansion at the Papillion Creek Plant. This grant was further supplemented by $350,000 in City funds to provide the necessary construction monies.

In 1973 the City of Omaha successfully floated a 19 million dollar bond issue to provide the requisite matching City funds for expansion of its wastewater collection and treatment facilities. At the time this bond issue was sold, it was anticipated that it would provide the monies needed to complete this expansion. Because of the lack of adequate Federal funding for construction programs, inflation has tremendously diminished the buying power of these bond monies to the point where they will only provide matching funds for the Missouri River Plant. The Metropolitan Area will, in the near future, be required to provide additional means of financing to fund the balance of the City's share of its wastewater program.

In recognition of the fact that 201 Construction Funds have not been provided beyond 1983, it would appear secondary treatment cannot be added to the Omaha Papillion Creek Plant except at a tremendous sacrifice on the part of the resident in the Metropolitan Omaha Area. Therefore, not only would we respectfully request Federal funding be extended beyond the present 1983 limitation date, but increase as well the current level of funding up to 4.5 billion dollars.

# CITY OF DECORAH IOWA

MEMBER OF IOWA LEAGUE OF MUNICIPALITIES

November 23, 1979

RECEIVED

The Honorable Norman Mineta, M. C.
House Office Building
Washington, D. C.

NOV 2 1979

CONG. NORMAN Y. MINETA

Attention: House Public Works Oversight Committee hearing on Operation PUMP

Dear Sir:

I wish to enter into the record for Operation PUMP the position of the City of Decorah.

The City of Decorah for many years has been attempting to clear the hurdles to place on line a new wastewater treatment facility. The City has been frustrated at most every turn by conflicting requirements between the federal Environmental Protection Agency (EPA) and the Iowa Department of Environmental Quality (IDEQ).

On March 4, 1977 all elements of facility planning were complete and in accordance with then established guidelines. A conflict then developed between IDEQ and EPA over effluent standards. It was not until January 25, 1979 that authorization was received from IDEQ and EPA to modify the facility plan for increased requirements of effluent standards. As a result of delays of this type the city's funding priority has been adversely affected. On May 25, 1979 the City received notification that the funding priority for Decorah has been set back to March 31, 1983 for Step 2 and September 30, 1984 for Step 3.

The two year conflict between EPA and IDEQ has resulted in the city's being penalized at least two years in funding priorities. This penalty is grossly unfair to the citizens of Decorah who have, through their elected representatives, agreed to abide by all requirements set before them by IDEQ and EPA.

It is imperative that the Decorah Wastewater Treatment Facility move forward with all possible speed. It appears that this can occur only if the conflicts between EPA and IDEQ are resolved with finality.

The citizens of Decorah would be most appreciative of any assistance your committee can give to untangle Decorah's Waste-Water Treatment Facility.

YOU'LL LIKE DECORAH

Sincerely,

David T. Nelson

David T. Nelson
Mayor

cc: The Honorable Tom Tauke (Iowa)

DTN/pal

TECUMSEH
MICHIGAN

November 28, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
B376, Rayburn House Office Building
Washinton, D.C. 20515

Attn: Robert Prolman Re: Oversight Hearings

Dear Sir:

I request that this letter be included in the record of the recent hearings on the EPA Construction Grants Program.

I am the Mayor of the City of Tecumseh which has a population of over 7,000 people. Our existing treatment plant was built in 1951 as a high rate trickling filter and converted to an activated sludge system in 1966. In February 1976, we became involved in the EPA Construction Grants Program in order to receive financial assistance in complying with the Federal Water Pollution Control Act and to clean up water pollution problems in our community. Since that time we have submitted reports to the Michigan Department of Natural Resources and revised reports, but nothing has been designed or built and thus no pollution problems have been solved.

Our project involves the expansion and upgrading of the existing treatment plant from a 1.4 mgd secondary treatment plant to a 2.5 mgd advanced wastewater treatment plant, additional drying beds for sludge dewatering and the replacement of an existing sewer line with a 24-inch gravity sewer, to reduce infiltration and inflow. EPA regulations have changed significantly since we became involved in this program. I understand that PRM 79-7, issued March 9, 1979, concerns the need for further review and evaluation of projects requiring advanced treatment, such as ours, and has significantly delayed our project for the past eight months.

We became involved in the EPA Construction Grants Program over three years ago and completed a final facilities plan in April 1977 over two years ago. Our project has a priority of 14 on the current Michigan priority list. However, to date, we have not received approval of our Step 1 facilities plan although we have expediously attempted to fulfill all requirements.

Refrigeration Capital of the World
City of Tecumseh • P.O. Box 368 • 309 East Chicago Boulevard • Tecumseh, Michigan 49286 • 517/423-2107

63-935 O—80——72

The Honorable Norman Mineta
Page 2.
November 28, 1979

We would appreciate any assistance which your subcommittee can give us in streamlining the EPA Construction Grants Program and in facilitating the processing of our project.

Very truly yours,

Aden E. Mead, Mayor
City of Tecumseh

AEM;ljc

cc: Donald Mitchell, Lenawee County Drain Commission
Richard Hinshon, DNR
McNamee, Porter and Seeley

NOV 30 1979

# CITY OF PORTAGE

"Where the North Begins"

PORTAGE, WISCONS
53901

[redacted]

MAYOR

November 27, 1979

Honorable Norman Mineta
Chairman of the Oversight and Review Board
B 376
Rayburn House Office Bldg.
Washington, D.C. 20515

Attn: Robert Probman

I request that this letter be included in the record in the recent hearing on the E.P.A. Construction Grant Program. This letter is in reference to the problem the City of Portage, Wisconsin has experienced with Phase I of E.P.A. Construction Grant Program.

The problem that we have here in Portage is that in 1975 the City recognized that we were going to have to do a considerable amount of work on their wastewater treatment plant, in order to meet the water quality standards that were developing for the year 1982. Because of this concern, the city retained a qualified firm of engineers, the Owen Ayres Engineering Company from Eau Claire, Wisconsin. We hired them in 1975.

This engineering firm did their preliminary study, and in November of 1976 they came in with a facility plan program. The Council then ordered them to continue to work on it, and on June 6th, 1977 a hearing on the wastewater treatment plant was held here in the City of Portage.

Concerns of the people down river (Wisconsin River) from Portage created a situation where the Environmental Protection Agency through the Chicago office became involved. Then in September of 1977, they expressed their concern, and stated that they were going to take a position that they are in.

The Agency at Chicago, then hired Wapora, Inc. of Chicago, Illinois to do a study for them. According to their time table, the study was to commence on January 25, 1978, and was to be completed by August 31, 1978. In the meantime the City of Portage was stopped from going any further.

Honorable Norman Mineta
Chairman of the Oversight and Review Board
Washington, D.C. 20515

November 27, 1979
Page 2

At the present time we were advised that in September, 1978 the study would come down, and we could then proceed with the site requested, or alternative site. Then in the fall of 1978 we were told that there had to be some further soil testing on the land by the engineering company, and again we were promised results as early as May of 1979. Then we have been led to believe that it will be July or September of 1979, before there is any results from this survey and the EIS completed by February 1, 1980. Now a third schedule of completion has been offered by E.P.A. for May 1, 1980 with no end in sight.

At one of the meetings here, last fall, I mentioned that if this matter did not resolve itself shortly, I intended to go to the Congressmen representing this district for help. At that time the E.P.A. office in Chicago advised that if we did that, it would just serve to delay matters, because then they would spend all their time in Washington responding to your questions, not taking care of the city's problem, or studies involved.

At the present time the original discussions we had with our engineers, would have resulted in the facility being under construction in 1979. Our estimated cost at that time was $4,700,000.00. We expected to get 25% of the funding from the City, and 75% of the funding from the E.P.A. Agency. Of course as a result of this continuing problem, and the lack of studies and the lack of decision, we now appear to have dropped so far down the E.P.A. schedule, that there is no such funding available. This means that the City of Portage has got to go back to the State of Wisconsin, for "Wisconsin Fund Money". This funding reduces the participation by outside agencies, to something less than 60%.

At the present time due to inflation the cost of this project has gone from $4,700,000.00 to a cost of excess of $8,000,000.00. To the city taxpayers, it means that we are going to have to pay over $4,000,000.00 of this cost, where originally we were talking about $1,000,000.00 being paid by residents and taxpayers of the community. If there is no action taken in 1979, it could cost the city taxpayers another $500,000.00 based upon the current inflationary rates.

My question to your office, is there anything that can be done from your office, to put pressure on the Chicago Agency to get their study over with. All we want is an answer, as to where we should go, and we will start on it. We can't afford to be in non-compliance with the quality standards act on July 1, 1983, because of the tremendous cost, fines, and penalties will be paid. In the meantime the State of Wisconsin Department of Natural Resources indicates there will be no further sewers, advancements or additions as of May 1, 1979. This creates an untolerable situation for those of us in this community that are working so hard for industrial development, and for increase growth for the community.

Honorable Norman Mineta
Chairman of the Oversight and Review Board
Washington, D.C. 20515

November 27,,1979
Page 3

As recently as last month E.P.A. has pointed out additional problems the City can expect to encounter with wetlands, because of new regulations with the City's proposed site since the completion of the facilities plan in December of 1976.

In conclusion; the time delays have been very frustrating and costly to the City of Portage, Wisconsin and any streamlining of the E.P.A. Construction Grant Process, especially in the Environmental Impact area, could save tax payers millions of dollars per year.

Sincerely yours,

By: Francis P. Riley
Francis P. Riley, Mayor

FPR:cc

**CITY of MODESTO**

**Public Works Department:** 801 11th Street, P.O. Box 642, Modesto, CA 95353

Administration (209) 577-5209

RECEIVED
NOV 2..
CONG. NORMAN Y. MINETA

November 16, 1979

The Honorable Norman Y. Mineta
Subcommittee on Investigations and Review
Committee on Public Works and Transportation
U.S. House of Representatives
B-376 Rayburn Office Building
Washington, D.C. 20515

Subject: City of Modesto, California - Wastewater Treatment Improvements - Environmental Impact Study Process

Sir:

The City of Modesto has been actively involved in processing a grant application for funding wastewater treatment plant improvements. Our experience was described in a letter dated June 22, 1979 addressed to Mr. Robert S. Prolman, Committee Staff Member. Inclusion of that letter in the Congressional Record would be acceptable if you deem it appropriate.

We are still struggling in our pursuit of grant funds. It appears that the Environmental Impact Statement being prepared by EPA will be finalized early next year. We are now anticipating that our project will finally be completed and on line in late 1982, some eight years after we first began this process. It's hard for us to believe that the eight-year time span from initiation to completion of the project is what Congress had intended when they moved to clean up the waters of the country.

Sincerely,

Ross Campbell

Ross Campbell
Director

RC:b
Enclosure
cc: Mr. Jerry Gilbert, J. B. Gilbert & Associates

CITY OF MODESTO
CALIFORNIA

PUBLIC WORKS DEPARTMENT

City Hall, 801 Eleventh
P. O. Box 642, 95353
(209) 577-5211

June 22, 1979

Mr. Robert S. Prolman
Professional Staff Member
Subcommittee on Investigations and Review
Committee on Public Works and Transportation
U. S. House of Representatives
B-376 Rayburn Office Building
Washington, D. C. 20515

245-1

Subject: City of Modesto, California
Wastewater Treatment Improvements
Environmental Impact Study Process

Dear Mr. Prolman:

In response to your request, this summary of the environmental impact process for a major wastewater project of the City of Modesto, California was prepared with the help of staff members. The need for improvements to the Modesto wastewater system was identified in the Water Quality Control Plan adopted by the State of California in 1975. Expansion of the treatment and disposal systems is necessary to meet projected growth of the city from a population of 100,000 to a population of some 162,000 persons after year 2000. The City's intent has been to construct an improvement project with a capacity to serve its wastewater management needs through year 1990.

Project planning began in October of 1974. The City expected the planning and environmental studies to be completed in 1976 and construction to be under way by the spring of 1977 (see Schedule - Attachment A). The City subsequently encountered major delays in its project schedule due to an EPA decision to prepare an environmental impact statement (EIS) on the project.

In August 1975, the City retained the services of Jenks & Harrison, Consulting Engineer, to conduct facilities planning and J. B. Gilbert & Associates to conduct environmental studies. These studies were completed and a public hearing on the resulting engineering report and draft environmental impact report (EIR) was conducted in July 1976. The engineering and environmental recommendations were to implement wastewater management improvements in two stages as follows:

- Stage 1 improvements consist of enlargement of the City's existing primary level wastewater treatment plant and improvements to the plant's effluent oxidation ponds. Construction of the Stage 1 project was intended to be completed by July 1979.

- Stage 2 improvements consist of elements necessary for irrigation reuse of plant effluent to eliminate year-round discharge to the San Joaquin River. The 1976 engineering and environmental studies recommended additional studies to define the effluent reuse system components and environmental impacts. Construction of the Stage 2 project was intended to be completed by July 1980 (Attachment A).

Stage 1 Project Delays

The Stage 1 project has been delayed 36 months from the City's intended schedule. This delay resulted from the Federal EIS process; delay began upon completion of the Stage 1 project report and EIR in October of 1976. On October 11, 1976, the City Council approved the Stage 1 project, certified the EIR process as complete, and requested that the State and the U. S. Environmental Protection Agency (EPA) prepare a NEPA package (environmental impact appraisal and Federal negative declaration) on the Stage 1 project. Had the State and EPA chosen to issue the negative declaration, a Step 2 (design) grant offer would have been made and the project would have continued along the original City schedule shown in Attachment A.

EPA's decision to explore the need for a Federal EIS was followed by a deliberation period of 11 months during which EPA considered whether or not an EIS should be prepared. During this period, EPA cited the urban conversion of prime agricultural lands as an issue which should have been addressed in greater detail than had been done in the City's 1976 EIR. In a proposed EIS issue paper dated August 27, 1977, EPA identified the potential encroachment of residential development on prime agricultural land as EPA's principal concern with the Modesto project and also identified: (1) air quality, urban runoff, and water resources as other secondary impact environmental issues needing to be addressed in the proposed EIS and (2) issues related to the need for and degree of treatment of wastewater (i.e., effluent disposal on land or in reuse versus continued discharge to the San Joaquin River) as issues of EIS concern. On several occasions, the City met with EPA and the State to discuss the proposed EIS issues and the City's view that all of the issues except reclamation/reuse had been adequately addressed in the 1976 EIR. The City stressed that (1) the issues of degree of treatment and reclamation/reuse would be further addressed in the 1978 subsequent EIR on agricultural reuse of effluent, (2) the air quality issue was currently under study in the Air Quality Maintenance Plan (AQMP) preparation process, and (3) the preservation of prime agricultural land has long been of local concern and is rigorously addressed in the City's Urban Growth Policy. The City's position on the EIR coverage of the proposed EIS issues is contained in a letter I wrote on August 25, 1977 to Mr. Allan S. Abramson of EPA.

On September 9, 1977, EPA announced its intent to prepare an EIS. A projected EIS schedule issued at that time showed expected completion of the draft EIS and public hearing by July 21, 1978.

The draft EIS was actually completed in April 1979, and the public hearing date has been set for June 27, 1979. The EIS preparation process is expected to be complete by October 1, 1979 (at a cost of $240,000), and the City has been assured that they may expect a Step 2 grant offer on the Stage 1 improvements shortly thereafter.

Stage 2 Project Delays

The Stage 2 project has been delayed 24 months from the City's intended schedule as a result of the EIS process (Attachment A). In accordance with the 1976 Project Report and EIR recommendation, the City initiated additional planning and environmental studies for the Stage 2 (effluent disposal) project in November 1977. The Stage 2 Project Report and EIR were completed and a public hearing conducted on August 7, 1978. This completion was one year later than the City's original planning schedule which had been revised to be consistent with EPA's projected (July 21, 1978) public hearing on the Draft EIS. Because the Federal EIS was still under preparation, the City chose to hold completion of its EIR until after the public hearing on the draft EIS (now scheduled for June 27, 1979). The City plans to approve the Stage 2 project and EIR on August 7, 1979. Thereafter, the Stage 2 project is expected to follow the same schedule as the Stage 1 project; i.e., completion of construction by July 1982.

Project Cost Increase Due to Delay

The EIR-related delay in construction of the Modesto project has been accompanied by a two million dollar (18%) inflationary increase in the estimated project cost (Attachment B). This includes: (1) $0.41 million in increased local cost, (2) $0.24 million in increased State grant cost, and (3) $1.39 million in increased Federal grant cost.

Notes on the Modesto Draft EIS

The draft EIS focuses on the environmental effects of growth accommodated by the Modesto project and centers on: (1) the issue of urbanization of prime agricultural land and (2) the issue of timely attainment and maintenance of air quality standards.

Prime Land. The EIS identifies 47 possible measures for mitigating the potential loss of prime agricultural land. A process of elimination reduces this list of eight measures which could be locally implemented without adverse side effects. The effectiveness of four of these measures is classified in the EIS as unknown; one is slightly effective and three are considered strong. Two

of the three strong measures are already in effect at Modesto as are two of the four measures rated as being of unknown effectiveness. Thus, four of the apparent best eight mitigation measures identified in the EIS study are already in effect at Modesto, a point that the City tried repeatedly to make in 1977 when EPA was considering whether or not to prepare an EIS.

Air Quality. The EIS presents a lengthy section on air quality which concludes with a section on mitgation of air quality impacts. The air quality mitigation section recognizes that Modesto is already formally committed to assisting in the development and implementation of the Air Quality Maintenance Plan being formulated by the Stanislaus Area Association of Governments (SAAG). The EIS suggests that the mitigation of growth-related air impacts can be considered from two perspectives. The first perspective would focus on the City's participation in the regional air quality management program. The second perspective would have the City embark on an air mitigation program which would reduce pollutant emissions in the project service area to a no growth level. The EIS devotes considerable space to this AQMP-independent approach and also to critique of the evaluation methods employed in the AQMP studies. A more productive approach might have been to contribute the financial and manpower resources used for EIS air quality analysis to the AQMP studies rather than produce an air mitigation program that is in conflict with the AQMP and, in view of the City's AQMP commitment, not needed and not likely to be implemented.

If you have further questions on the Modesto case, please contact Al Doyle of J. B. Gilbert & Associates at (916) 444-0123 or me at (209) 577-5209.

Very truly yours,

Ross Campbell

Ross Campbell
Director

RC:wpc

cc: J. B. Gilbert & Associates

ATTACHMENT A

MODESTO WASTEWATER MANAGEMENT PROGRAM SCHEDULE

| Step | Stage 1 Project | Original City Schedule | Actual | EIS-Related Project Delay (months) |
|---|---|---|---|---|
| 1. | Complete draft Environmental Impact Report, Project Report and hold public hearing | July 15, 1976 | July 12, 1976 | 0 |
| 2. | Complete final Environmental Impact Report, Project Report, approve by City Council and submit to SWRCB for "concept approval" | September 1, 1976 | October 11, 1976 | 0 |
| 3. | Receive SWRCB "concept approval" Step 2 grant offer, authorize final engineering plans and specifications | October 1, 1976 | December 1, 1979 (projected) | 38 |
| 4. | Complete final engineering plans and specifications, complete financing arrangements, submit to SWRCB for approval | August 1, 1977 | August 1, 1980 (projected) | 36 |
| 5. | Receive SWRCB approval, advertise for construction bids, receive construction bids, submit to SWRCB for approval, receive approvals, receive Step 3 grant offer, award contract, commence construction | December 15, 1977 | December 15, 1980 (projected) | 36 |
| 6. | Complete construction of Stage 1 project, initiate operation | July 1, 1979 | July 1, 1982 (projected) | 36 |
| | **Stage 2 Project** | | | |
| 1. | Receive Step 1 grant amendment approval from SWRCB, commence Stage 2 project studies | October 1, 1976 | November 1, 1977 | 13 |
| 2. | Complete draft supplement to Environmental Impact Report, Project Report, and hold public hearing | August 1, 1977 | August 7, 1978 | 12 |
| 3. | Complete final Environmental Impact Report, Project Report, approval by City Council, and submit to SWRCB for "concept approval" | October 1, 1977 | August 7, 1979 (projected) | 22 |
| 4. | Receive SWRCB "concept approval", Step 2 grant offer, authorize final engineering plans and specifications | December 1, 1977 | December 1, 1979 (projected) | 24 |
| 5. | Complete final engineering plans and specifications, complete financing arrangements, submit to SWRCB for approval | August 1, 1978 | August 1, 1980 (projected) | 24 |
| 6. | Receive SWRCB approval, advertise for construction bids, receive construction bids, submit to SWRCB for approval, receive approvals, receive Step 3 grant offer, award contract, commence construction | November 15, 1978 | November 15, 1980 (projected) | 24 |
| 6. | Complete construction of Stage 2 project, initiate operation | July 1, 1980 | July 1, 1982 (projected) | 24 |

ATTACHMENT B

MODESTO PROJECT COSTS

| | Cost to Construct Under Original Schedule ($ million) | Cost to Construct Under Delayed Schedule ($ million) | Increase From EIS-Delay ($ million) |
|---|---|---|---|
| Stage 1 Project[a] | | | |
| Local Share | 1.28 | 1.54 | 0.26 |
| State Grant | 0.73 | 0.88 | 0.15 |
| Federal Grant | 4.39 | 5.28 | 0.89 |
| Total | 6.40 | 7.70 | 1.30 |
| Stage 2 Project[a] | | | |
| Local Share | 1.02 | 1.17 | 0.15 |
| State Grant | 0.58 | 0.67 | 0.09 |
| Federal Grant | 3.49 | 3.99 | 0.50 |
| Total | 5.09 | 5.83 | 0.74 |
| Stage 1 + Stage 2 Totals | | | |
| Local Share | 2.30 | 2.71 | 0.41 |
| State Grant | 1.31 | 1.55 | 0.24 |
| Federal Grant | 7.88 | 9.27 | 1.39 |
| Total | 11.49 | 13.53 | 2.04 |

[a]Original schedule called for beginning Stage 1 construction in 1977 and Stage 2 construction in 1978. Construction of both stages is now planned to begin in 1980 (See attachment A).

8/26/77 cc: Mayor & Councilmembers (for info.)

CITY OF MODESTO
CALIFORNIA

PUBLIC WORKS DEPARTMENT

City Hall, 801 Eleventh
P. O. Box 642, 95353
(209) 524-4011

August 25, 1977

Mr. Allan S. Abramson, Chief
California Branch
Environmental Protection Agency,
Region IX
100 California Street
San Francisco, CA 94111

Subject: Expansion of Modesto Wastewater Treatment Facility and Supporting EIR

Dear Mr. Abramson:

Our meeting on Tuesday, August 16, was helpful in identifying concerns the EPA staff is experiencing in processing the City's Project Report and EIR describing needed wastewater treatment facilities at the Modesto treatment plant. Our discussion was fairly general and did not specifically address the two papers your staff prepared outlining issues suggested for more detailed review. At the conclusion of the meeting it was agreed the City would provide you written comments on the issues raised by the papers. The City's comments were to be considered by you before a final decision was made on whether an EIS expanding on the issue of urbanization of prime agricultural land would be needed before concept approval of the Wastewater Facilities Project Report was given. This letter constitutes the City's response to the issues raised.

Our response will be in three parts. The first will repeat some background data that is contained in the Project Report, Draft EIR dated June, 1976, or the Supplement to the EIR dated September, 1976. The second part will consist of comments to items in the General Discussion Paper. The third part will be our response to the seven specific issues raised.

BACKGROUND DATA

The project which is being considered for concept approval by EPA is designed to meet the following objectives:

1. Meet immediate, near-term waste discharge requirements.

2. Provide treatment facilities for limited population growth as identified by State Department of Finance D-100 Series population projections.

3. Provide for limited expansion of industrial wastewater loadings.

4. Be cost effective and capable of incremental expansion to meet projected long-range population and treatment requirements.

The study area for the Project Report and EIR is delineated by the Modesto Urban Area General Plan. The land use within the General Plan area can be summarized as follows:

| | | |
|---|---|---|
| General Plan Area | 36,200 Ac. | |
| Urban Reserve | | 11,300 Ac. |
| Existing Sewer Service Area | 24,900 Ac. | |
| Undeveloped | | 7,500 Ac. |
| Existing Urbanized Area (July, 1977) | 17,400 Ac. (Est.) | |
| Acreage Subject to Urbanization | | 18,800 Ac. |

The study period for the Project Report was twenty years, with recognition that treatment facilities should be planned for a ten-year design period and with pumping and pipeline facilities to meet twenty-year projected needs, both time frames being consistent with State grant funding limitations.

The study period for the EIR was somewhat different from that of the Project Report in that we were concerned with secondary impacts such as air quality, noise level, water supply, water quality, traffic congestion, and urbanization of prime farm land that occur as a result of growth in the General Plan Area. These concerns were addressed in the EIR by looking at population levels as follows:

1. Present

2. Interim (based on a population level projected to occur sometime between 1990 and 2000 and referenced as 1995 in the EIR)

3. Capacity (based on complete development of the Modesto General Plan area. No specific target year was indicated for the capacity population)

The population of the Modesto urban area is projected to reach 190,760 by 1995 (interim) and 404,960 by some undetermined date in the future as the General Plan area reaches its capacity population. The EIR addressed the issues of air quality, noise, traffic congestion, etc., for both the interim population level (1995) and the capacity population level.

The EIR addressed the impacts of growth for time periods well beyond any growth that would result from the project for which grant funds are being requested. The project, when completed, would permit the following growth:

| | |
|---|---|
| Population | 32,000 |
| Land Conversion | 3,200 Ac. |
| Domestic Flow | 3.3 mgd |
| Non-Seasonal Ind. | 1.2 mgd |
| Seasonal Ind. | 5.0 mgd |

It should be noted that the population the project is designed to serve can be accommodated within the existing sewer service area. No conversion of prime farm land to urban uses outside the current sewer service area is required as a result of this project. When conversion of prime farm land does occur, it will do so within the framework of the City's Urban Growth Policy which is as follows:

1. Urban growth shall be directed to areas currently served with City services as long as economically reasonable.

2. Urban development should be kept as contiguous as possible to avoid premature urbanization of valuable farm land, to foster resident convenience, and to provide for economy in City services.

3. Residential development should be encouraged in the west and southwest sections of the urban area.

4. Interim agricultural preservation of lands beyond the current sanitary sewer service area but within the ultimate sanitary sewer service area shall be supported by "opposition" to Williamson Act contract referrals

from the County. Such opposition enables the landowner to break the contract and convert his land to urban uses without penalty if, through annexation, City services become available to the property.

5. Long-term agricultural preservation of lands beyond the ultimate sanitary sewer service area shall be encouraged by support of Williamson Act contract referrals from the County.

6. Any decision to extend City services based on the annual urban growth policy review should be accompanied by a General Plan amendment, a Capital Improvement Program review, a Williamson Act contract review, and the preparation of neighborhood zoning and development plans.

RESPONSE TO GENERAL DISCUSSION PAPER

We would like to deal with this portion of our response by commenting on some specific statements contained in the discussion paper.

At the top of page 2 the following question is raised: "The key question for the Modesto Facilities Plan is, 'Will a significant amount of prime agricultural land be developed for other uses as a result of this project?' The answer to this question is determined by how much Modesto will grow in the next twenty years. The Facilities Plan and the EIR of this project do not answer this question."

It is true the Facilities Plan does not address in detail the question of how much Modesto will grow in the next twenty years. What it does do is answer the question of what form the waste treatment process will take and then identifies facilities to meet the short term (10 year) needs of the community. It also identifies the direction that incremental expansion of the treatment facility can take to provide service for the longer range needs of the community.

The EIR, on the other hand, speaks directly to the question of how much Modesto will grow in the next twenty years. The EIR discusses an interim growth condition for Modesto which is referenced to the year 1995 and a capacity condition wherein the General Plan

area is fully developed. The date by which we would reach capacity is not identified but we would suggest it is sometime after the year 2000.

The population of Modesto is projected to grow by an estimated 90,000 in the next twenty years. Assuming the population density of Modesto remains at about 10 per acre, we can project a need of 9,000 acres to accommodate this growth. There is an estimated 7,500 acres within the existing sewer service area; therefore, an additional 1,500 acres would need to come from the urban reserve area designated on the General Plan. This approach assumes full development of the 9,000 acres. This obviously will not happen and some allowance must be made for vacant land within the urban area. Assuming 2,500 acres to represent a reasonable land bank of vacant land, the total acreage needed to accommodate growth over the next twenty years is suggested to be in the order of 4,000 acres. The question now becomes, "Is the urbanization of 4,000 acres beyond the existing sewer service area over the next twenty years significant?" As noted in the EIR (Table S-12 of Supplement), the San Joaquin Basin will increase its irrigated agricultural lands by more than 200,000 acres during a twenty-year period (1970-1990).

The original question was, "Will a significant amount of prime agricultural land be developed for other uses as a result of this project?" The project will allow an estimated 3,200 acres of land to be urbanized. The twenty-year population projection suggests the need of an additional 8,300 acres of land, 4,000 acres of which is outside the existing sewer service area. In our judgment the EIR has made the citizens of Modesto aware of the consequences of growth and its impact on agricultural land.

On the bottom of page 2 is a table which identifies acreage requirements for the Modesto area which would result from uncontrolled growth. Our only response to this table is that it's a total exaggeration--overkilled, if you will--in trying to underscore a point that significant amounts of prime agricultural land will be committed to urbanization in the Modesto area as a result of growth. The fact is that there is a total of just under 19,000 acres of land exposed to growth within the General Plan area and projections are that the ultimate need for all of this land is well beyond the year 2000.

At the top of page 3 there is a statement as follows: "Although, because of limited grant funds, the D-100 population projections are used by the State Board to determine grant eligibility, the environmental impact projects must be based on the real growth in the area, not on an arbitrary funding level decision. Therefore, the EIR (EIS) must be based on a twenty-year real population projection, not an artificial ten-year projection."

63-935 O—80——73

The EIR was based on the real growth projected for the Modesto area. It dealt with an interim population level anticipated to occur sometime between 1990 and the year 2000 and referenced to 1995 in the EIR. Additionally, the EIR dealt with capacity population for the General Plan area that was anticipated to be reached sometime after the year 2000, assuming growth rates of the immediate past are continued over the next twenty to thirty years.

The beginning of the second paragraph on page 3 is as follows: "Although the EIR prepared for the Modesto Treatment Plant shows that substantial growth will occur in the Modesto area in the next twenty years, this growth or induced impacts it will cause is not related to the capacity of the treatment works." We just responded above to a concern that the EIR must be based on a twenty-year real population projection and not an artificial ten-year projection (State D-100 projection). We agree that the EIR does show substantial growth in the next twenty years. We also agree that the capacity of the treatment works is not designed to accommodate that twenty-year growth. The treatment plant design is of a nature that recognizes the potential for continued growth in the Modesto area and that incremental additions to the treatment facilities can be constructed to respond to whatever growth does occur in the Modesto area.

At the bottom of page 3 it is commented that "The secondary impact issues generally relate to effect of the population served on the environment. The discussion must not merely indicate that there will be additional capacity, but must also show what type of service will be extended to undeveloped or lightly developed areas." Further on at the end of this paragraph it is noted that "for a given amount of 'reserve' capacity, a facility could serve a variety of community types that would generate a wide variety of environmental effects."

The reserve capacity that's built into the waste treatment facilities is there to accommodate a population determined by the D-100 growth projection prepared by the State. This growth projection suggests a population increase of 32,000 by 1987. That population can be accommodated within the existing sewer service area of the City and will require the urbanization of an estimated 3,200 acres of land. The development of this land for urban use will conform to the General Plan standards as they now exist or are modified in the future. It is implied that the EIR has not addressed the matter of location, form, and additional development required to respond to growth. We suggest this is an uninformed position since "the location, form, and amount of additional development" that will occur in the Modesto area as a result of any growth is described and controlled by the Modesto General Plan and the General Plan Standards.

The last paragraph before the CONCLUSION on page 4 states the following: "In identifying environmentally significant areas, applicable land use plans must be reviewed, validated and in some cases supplemented. It is not possible for EPA to assume that all land use plans have considered and will result in protection of the environment." We don't ask EPA to assume anything. What we do ask is that EPA give the community credit for the planning which is has done and is doing. We have a General Plan with its various elements and standards; we have an urban growth policy which is updated annually; and we have moved into a new area of planning in the form of our "Alternate Futures" report, all of which are part of a planning process geared to maintain and enhance Modesto's social, physical, and economic environment. We don't claim to have all of the answers, but we are diligently looking to find them.

ISSUES

1. "The EIS must define/determine how much Modesto will grow in the next twenty years."

   The Modesto Facilities Plan and EIR addressed this point. The Draft EIR clearly states on pages II-1 and X-2 that projected 1995 urban area population is 190,760. The EIR even goes beyond the 1995 population projection and suggests a capacity population for the urban planning area at 404,960.

   The Draft EIR also looked at growth in terms of acreage. Our estimate of a twenty-year need is on X-9 of the Draft EIR which indicates 6,971 to 7,633 acres.

   It is worth noting that the population projections used are the product of over seven years of collaboration between Caltrans, Stanislaus County, SAAG, and all the cities in the County. The validity of the methodologies used has been substantiated by census data and other "hard" statistical evidence. It is believed that the projections are based on "actual expected growth" and present a "realistic view" of Modesto's future.

2. "The cause and effect relationship between the capacity of the sewage treatment plant and potential growth it accommodates or promotes."

When we met with you and your staff on August 16, Dave Jones of your staff made a comment to the effect that by planning for the future (wastewater facilities, General Plan, etc.,) we were in effect encouraging growth, if not in fact promoting growth. If this truly represents the attitude of EPA, then you have already determined the cause and effect relationship between the capacity of the wastewater treatment facilities and growth of the community.

Proper planning for wastewater treatment facilities or land use is essential to the well-being of any community. We are mandated by law (State and Federal) that we plan for a wide variety of community services, not to promote or encourage growth as Dave Jones has suggested, but to respond to projections of growth made by a variety of responsible agencies and organizations. If we did not plan ahead, we would expose the residents of the community to water supply shortages, traffic congestion, overburdened park and recreational facilities and inadequate wastewater treatment facilities.

Chapter XV of the Modesto Wastewater Facilities Improvements EIR deals with the cause and effect relationship between the capacity of the wastewater treatment facilities and the growth-inducing impact of those facilities. Chapter XV is quoted in Part here:

> "Growth inducement has often been misinterpreted with regard to wastewater treatment facilities. Inducemsnt implies stimulus or incentive for development. In this sense, treatment facilities do not promote growth, but rather accommodate growth. However, if treatment facilities are inadequate in capacity or treatment level, they can limit growth.
>
> "The problems of population growth and development in Modesto have been dealt with through land use zoning, economics, transportation planning, and other programs designed to maintain the quality of life in the area. After consultation with local officials and planners, a project design capacity was decided upon that would be consistent with current population projections and land use plans."

There is no mandate that the capacity built into a wastewater treatment facility, or any other public facility for that matter, be used if in the future the community decides to forgo its use. The concern that growth will proceed unabated by the mere fact that the wastewater treatment facilities

have capacity to accommodate such growth ignores the many other factors which impact on growth. There are an ever-increasing number of checks to assure that growth as it occurs will be closely reviewed not only by the Environmental Impact Report process but by the City's own annual growth review.

4. "The effects on agricultural productivity due to increased growth-related secondary impacts, i.e., air quality, storm water runoff, groundwater quality, etc."

The secondary impacts of air quality, storm water runoff, groundwater quality, etc., from urbanization are just now beginning to be fully discussed and identified. There is actually very little material that we are aware of that is available to address these issues. In the area of air quality the best data that we have been able to uncover is a series of papers that were presented at the Cottrell Centennial Symposium which took place at Stanislaus State College in January of this year. We made your staff aware of this material and believe you have now acquired copies for your library. There is no question that air quality does have impact on agricultural productivity. Currently, that impact is relatively minor in the Central Valley and difficult to quantify in specific terms. Its impact is not dramatic in the sense of identifiable damage to plant growth but is more subtle in the sense of reduced productivity.

Air quality in the Central Valley and in particular the oxident levels which are of primary concern should improve over the next ten years as a result of current control measures. It's reasonable to assume that improvements beyond the ten years will result from the AQMP processes that are currently under way in each of the critical air areas in the Central Valley. Air quality problems in the Central Valley, and thus agricultural productivity, may be more dependent on the cleaning up of the air in the San Francisco Bay Area than the secondary impacts from urbanization in the Central Valley.

Storm water runoff, to my knowledge, has not been identified as a problem to agricultural productivity in the Central Valley. Tailwater drainage from irrigated lands is certainly a problem and is currently being addressed. The bulk of the storm water runoff occurs at times other than the irrigation season and thus has little impact on agricultural productivity.

The impairment of groundwater quality in the Central Valley and thus its impact on agricultural production has its greatest threat from salt build-up as a result of land

irrigation and overdrafing of groundwater for agricultural uses. There's no question that urbanization places an additional demand on the groundwater and will have its impact but not in the magnitude that results from agricultural activity.

5. "What national interests are found in Modesto which override the importance of the preservation of prime and unique farmlands or outweigh the environmental benefits derived from their protection as defined in the CEQ memo of August 30, 1976. What is the value of these highly productive farmlands in Stanislaus County in relation to their unique contribution to the agricultural productivity of the County and State?"

This is a difficult question to answer since we are unaware of a national policy defining the importance of agricultural land in relation to other land uses. Nevertheless, assuming agricultural land preservation to be of paramount interest, the answer is that no overriding national interests exist here.

Policy decisions, though, are rarely based on one criteria but are the result of examining many criteria and either balancing them or choosing between them. Our "Alternative Futures" report is an example. It is divided into sections, looking at the environmental, institutional, economic, and perceptual impacts of urban growth. We believe such a broad perspective is the best way of approaching the question of agricultural land preservation and urbanization.

6. "How the loss of prime agricultural land can be replaced or mitigated. What are adequate mitigation measures for the loss of prime and unique farmlands? What is an appropriate population density and size for urban areas located on prime farmlands? What is the minimum amount of land needed to accommodate growth? Could the least productive lands surrounding the City of Modesto absorb this growth? What would be the effect of concentrating population density in the inner parts of the city?

All the questions raised are important but are of a nature where there is no one right answer. Modesto has been struggling to find the answers to these questions for the past five years and no doubt will be addressing these very same questions during the next five years. It is seriously doubted that the preparation of an EIS at this time would contribute materially to what is known or perceived as the consequences of urbanization of 4,000 acres of land beyond the existing sewer service

limits over a twenty-year period. Time is an element we tend to forget about. Time has given us a considerable change in attitude towards growth and urbanization of farmland over the past five years. Time, more than an EIS, will give Modesto the opportunity to make the right decision concerning growth and urbanization of farmland within the next five years.

7. "The issues of air quality, water quality, water supply, wastewater treatment, plant expansion, industrial expansion, loss of prime farmland, urban growth, population density, energy supply, etc., have to be interrelated so as to show how each is affected by the other and what the cumulative effect will be on the quality of the human environment."

We have attempted to utilize all existing data and known and predictable relationships to guide us with basic policy decisions. An example of our present knowledge is contained in the "Alternative Futures" report which was forwarded to the EPA. Here we assess air quality, water supply, agricultural land, energy supply, industrial expansion, and wastewater treatment and begin to connect them when possible. We then also try to relate these assessments to our urban growth policy and the annual urban growth review established back in 1973. While this material is not directly a part of our EIR, it is referenced in the EIR or has been completed subsequent to the completion of the EIR.

The consequences of urbanization of prime farmland have been addressed and will continue to be addressed by this community. There has been full and complete disclosure to the public. The Project Report and EIR provide data in sufficient detail to warrant the granting of concept approval for the work recommended in the Project Report.

Very truly yours,

Ross Campbell

Ross Campbell
Director

RC:b

The Town of Laurel

INCORPORATED 1883
OFFICE OF MAYOR & COUNCIL

P. O. BOX 210
LAUREL, DELAWARE 19956
(302) 875-2277

November 14, 1979

The Honorable Norman Y. Mineta
Chairman
Public Works Oversight Committee
Room 313
Cannon House Office Building
Washington, D. C. 20015

RECEIVED
NOV 4
CONG. NORMAN Y. MINETA

REFERENCE: House Public Works & Transportation Oversight Committee
EPA Construction Grants

Dear Mr. Mineta:

The November 12, 1979 issue of "Local Government Funding Report" published by Government Information Services, National Press Building, Washington, D. C., contained an article on testimony the Oversight Committee is hearing.

I would like to add a few comments of my own, while stating that I certainly agree with testimony reported on.

The EPA paper work is a hefty burden but not insurmountable. However, the real issue is the delay in reimbursement to communities.

The Town of Laurel is a small town (population 3,000) and is currently involved in two EPA Construction Grants. (EPA Project Numbers C-100114-02 and C-100115-02). We have made the necessary financing arrangements to carry our share of the projects, but the delays imposed by EPA in reimbursing us may cause us to have to seek an interim financing source. Additionally, the contractor is in a difficult cash flow position, and is faced with extremely high interest rates.

We have been fortunate to receive grants from EDA, for water tank and firehouse construction, and HUD, for Community Development Block Grants. In almost every case, when the proper payment requests are submitted, payment is received within ten (10) working days.

When I was involved in private construction projects, our lenders would act with equal speed.

The Honorable Norman Y. Mineta
Chairman
Public Works Oversight Committee
November 14, 1979
Page 2

There is absolutely no reason why EPA cannot bring their payment process in line with other Federal agencies and the rest of the country in general. They certainly manage to meet their other obligations on time since their telephones work and their employees get paid.

Thank you for your attention to this important issue facing many communities in the nation.

Sincerely,

MAYOR & COUNCIL OF LAUREL

H. Bruce Edkins Jr.

H. Bruce Edkins, Jr.
Community Development Director/
Grants Administrator

HBE:bw

cc: Honorable Tom Evans

ENVIROTECH 3000 Sand Hill Road
Menlo Park, California 94025
Telephone 415/854-2000
Cable ENVIROTECH, Telex 34-8360

FRANK P. SEBASTIAN
Senior Vice President

November 15, 1979

The Honorable Norman Y. Mineta
313 Cannon House Office Building
Washington, D.C. 20515

Dear Mr. Mineta:

I am enclosing a copy of the report on issues and problems confronting the water pollution control industry which you are authorized to place in the record as we believe it is of interest to you in connection with the recent hearings.

We would like to invite the Oversight Committee's particular attention to the testimony of your lead witness, Jeffrey A. Klein, who articulated the industry problems as seen by an investment banker.

We sincerely hope that the items raised in Klein's testimony and in the Ad Hoc Committee Meetings can be given full consideration by the Oversight Committee.

Sincerely,

Frank P. Sebastian
Senior Vice President

FPS/f
Enclosure

AD HOC COMMITTEE
WASTEWATER TREATMENT CHIEF EXECUTIVES

ISSUES AND PROBLEMS CONFRONTING
WATER POLLUTION CONTROL INDUSTRY

To be presented to EPA Administrator,
Congressional Heads and The White House

October 31, 1979

ATTENDEES:

Mr. Robert L. Chambers
Chairman
ENVIROTECH CORPORATION

Mr. Robert H. Malott
Chairman and Chief Executive
FMC CORPORATION

Mr. Nathan R. Owen
Chairman
GENERAL SIGNAL CORPORATION

Mr. John E. McConnaughy, Jr.
Chairman and Chief Executive
PEABODY INTERNATIONAL

Mr. R.V. Krikorian
Vice Chairman and Chief
Executive Officer
REXNORD

Mr. Michael D. Dingman
Chairman and President
WHEELABRATOR-FRYE INC.

October 1979

## ISSUES AND PROBLEMS CONFRONTING WATER POLLUTION CONTROL INDUSTRY

Current EPA policies and procedures have created a dearth of projects coming to bid and are making it impractical for major companies to supply equipment for water pollution control. As a result, our nation may lose benefits that accrue from technology and reliability provided by responsible equipment manufacturers.

Traditionally in the market for water pollution control equipment, consulting engineers have exercised their professional judgment to provide experienced analyses of alternative processes, systems and equipment in order to most economically serve their clients' long run interests. Now, however, EPA regulations and procedures have largely pre-empted the consulting engineers' professional perogatives -- to the detriment of municipalities, manufacturers and the program grantees.

For example, administrative hostility to anything other than "wide open" specifications has fostered irresponsible bidding, has diminished quality and reliability of equipment, has caused "profitless prosperity" in the wastewater equipment manufacturing industry, and has contributed to litigation during construction.

As another example, administrative over-emphasis on initial capital cost has inhibited procurement of equipment that balances initial cost with energy consumption and operating costs (such as maintenance and parts availability, and non-quantifiable factors) over the life cycle of a treatment facility. In addition, the present bias against higher initial cost systems eliminates the incentive of equipment manufacturers to invest funds in development of energy-conserving processes or equipment that reduce operating and maintenance costs -- indeed, to even allocate corporate resources to supply equipment for this market.

Specifit items of concern are:

I. Bid-qualification Procedures: Restraints on the professional discretion of consulting engineers has permitted irresponsible and unethical bidding to go unchecked. Qualification procedures, recently approved by the EPA, need to be aggressively encouraged and additional measures need to be taken to curb unethical and destructive post-award "bid shopping".

II. Procurement of "innovative or alternative" wastewater treatment systems: Although provided by the Clean Water Act, such procurements by and large are precluded by aversion to "sole source" -- even though sole sourcing is authorized by present regulations [40 CFR 35.908(d)] and widely practiced by other federal agencies to obtain "what is best in the long run".

From a pragmatic standpoint, sole source procurement is necessary so that communities can assure themselves of obtaining desired innovative technology at bid time. Municipalities will not take the risk of trying new technologies unless sole source procurements can be made -- because they are acutely aware that new technology often requires the expertise and incentive of the originator to make the technology work in a reliable form.

III. Unwarranted EPA emphasis on land techniques: Currently, there exists an "administrative presumption" in favor of land application techniques. This has resulted in a formidable barrier to full consideration of equipment-based technology. As matters now stand, proposals for projects that do not utilize land treatment must include proof that land techniques are not applicable. This has caused great delay, necessitating project re-design and re-submittals of grant requests. In fact, there is no basis in statute or legislative history to support this administrative

emphasis on "nature intensive" processes to the exclusion of other technology. (To the contrary, energy recovery systems were recognized as "alternative technology" by the Committee reporting the 1977 amendments to the Act.)

IV. Progress Payments and Retentions: Present EPA policy allows grantees discretion in providing progress payments to manufacturers of specially-designed equipment. As a result, municipalities must be individually persuaded by equipment manufacturers to avail themselves of this cost-reducing mechanism.

Mandatory progress payments would result in substantially lower costs since the burden of high interest rates during facility construction would not be borne by municipalities and manufacturers (and, ultimately, by the grant program and the federal government).

In addition, there are often costly and unfair withholdings of retentions from equipment suppliers and contractors. A simple solution is substitution of bonds or demand letters of credit in lieu of cash retentions.

V. Litigation: As described in the attached Appendix B, litigation has added substantial costs to the construction of sewage treatment facilities. The litigation results from, on the one hand, "wide open" bid specifications that fail to adequately define equipment and systems and, on the other hand, "catch-all responsibility" for future uncertainties on projects that has been increasingly placed on manufacturers.

* * *

In addition to the above-mentioned specifics, delays in award of grants, and delays in bringing projects to the bid stage, have caused severe problems for wastewater equipment manufacturers. Factors causing such costly postponements include (a) the above-mentioned unwarranted emphasis on land treatment; and (b) over-emphasis on low initial cost systems. This latter problem was, we believe, caused by over-reaction to the "two brand name or equal" provision in the Act.

If responsible companies are to continue supplying equipment for all applications of municipal wastewater treatment, prompt action must be taken to resolve the problems listed above. Completing the cleanup job should be the compelling objective, not the pursuit of theoretical business concepts which have so effectively slowed it down.

In order to sustain the interest of these manufacturers, it is important that some plan for monitoring progress be adopted. This can be worked out between the EPA and our appointed representatives.

The appendices attached recommend specific action, language, or other changes appropriate for correcting these problems.

October 1979

APPENDIX A

WASTEWATER EQUIPMENT MANUFACTURERS' PROPOSED ACTION ITEMS
(Roman Numerals Keyed to "Issues and Problems" Summary)

I. The Administrator should require grantees to adopt the EPA's recently approved bid qualification procedures (unless the grantee shows that such procedures are inappropriate for its project). The Administrator also should issue a Program Requirements Memorandum stating that naming of manufacturers in bid documents shall be encouraged and interpreted as being for the purpose of (1) identifying bidders who are qualified to produce that item, and (2) preventing post-award bid shopping.

II. To expedite implementation of the Innovative Technology Program, the current regulatory provision, which reads as follows:

> "A determination by the Regional Administrator under this section that innovative criteria have been met will serve as the basis for sole source procurement (see §35.936-13(b)) for step 3, if appropriate, to achieve the objective of demonstrating innovative technology. [40 CFR 35.908(d)]. (Emphasis added.)

should be amended to read:

> "A request by a grantee to demonstrate innovative technology will serve as the basis for sole source procurement of the technology under Step 3 unless denied by a Regional Administrator as inappropriate. In all other instances, the Regional Administrator shall determine that appropriate steps are being taken to achieve the objective of demonstrating innovative technology."

III. For projects exceeding 5 mgd, EPA should waive the requirements of Program Requirements Memorandum 79-5 that grant applicants "be required to provide complete justification for the rejection of land treatment". (Emphasis added.)

IV. EPA should:

A. Mandate Progress Payments from the federal share of funding (rather than letting such payments be permissive by the grantee).

B. Adopt regulations requiring grantees to accept instruments (such as "demand" retention bonds or "demand" irrevocable letters of credit) in place of cash retentions of the federal share. This can be accomplished by amending 40 CFR 35.938-7(a)(3), Retention from Progress Payments, which currently reads:

> "When the work is substantially complete (operational or beneficial occupancy), the withheld amount shall be further reduced below 5 percent to only that amount necessary to assure completion."

by adding:

> "and demand bonds or equivalent will be substituted for retention at the request of the contractor or supplier (through the contractor)."

V. Regarding litigation, please see attached Appendix B.

63-935 O—80——74

October 1979

LIT APPENDIX B
TIGATION ON MUNICIPAL WASTE TREATMENT JOBS

1. In t
incr he last few years there has been a dramatic
unde ease in litigation involving the construction
plan r the EPA grants program of sewage treatment
ts for municipalities.

2. Each
parti municipal waste treatment job involves several
workies -- all with a common interest but each
ing under different conditions:

Municipal grantee
EPA
Consulting engineer
General contractor
Equipment suppliers
Subcontractors

3. A mod
compliern waste treatment facility is essentially a
biolo ex multiple-stage processing plant with a
state gical step which is designed to reflect the
plant of the art. As with any continuous process
such with variable influent and required effluent,
factor a plant will not necessarily function satis-
adjust rily when the "ON" button is pushed. Balancing
necess tments, and frequently modifications, are
plants sary. This is true of similar industrial
s.

4. Becaus
thesis se the municipality generally proceeds on the
a spec s that it has a fixed price contract to effect
the de cific result, it is not usually receptive to
elays and cost of corrections even though

often the problem could not have been anticipated by the participating parties, and is not clearly the fault of any of the parties.

5. If the corrections by the general contractor or equipment supplier are not made promptly -- and action is delayed because it is generally difficult to assess exactly which of the parties involved is responsible -- the municipality institutes a civil suit, frequently naming one, two or all of the involved participants. Often the city handles such a suit through its own legal department, making the legal costs to the city small. The defendants normally are obliged to employ local legal counsel at tremendous expense to supplement their own legal staff.

6. Once in court, correction of the plant problems and achievement of water quality objectives are delayed, the costs of such correction increase (if only by equipment deterioration and inflation), and legal costs multiply.

The frequency of such suits is another factor discouraging responsible equipment suppliers from assuming municipal waste treatment contracts. The problem is so serious it requires immediate attention and correction.

At least two positive steps could be taken to reverse this trend of increased litigation:

-- The EPA, by directive, can advance water quality objectives by supporting the position that litigation should be only a last resort for municipalities -- that municipalities should participate in trying to

achieve a workable, practical solution to the problems that surface at the time of the completion of its sewage treatment plant, and that litigation should be used only when one or more of the parties is clearly at fault and is unwilling to correct its deficiencies.*

-- Since almost all jobs involving construction of sewage treatment plants require some adjustments or modifications at the time of completion (because they are state-of-the-art and may have different influent characteristics from that expected), EPA grants should provide for a reserve of, say, 10%. Regulations should be developed to provide a sound basis for the use of such reserve funds to correct any problems which could not have been anticipated, were not due to gross negligence or cannot readily be identified as the fault of one of the parties involved.

Such a new procedure would accelerate the achievement of desired effluent standards, and greatly reduce unnecessary litigation expense. The EPA should also review present litigation problems and provide supplemental funds for those cases where the responsibility is not clearly one of willful neglect.

* NOTE: EPA's recent action authorizing change orders for certain aspects of Niagara Falls plant is a positive step, e.g., "...modifications to the plant, to improve operations maintenance, etc., which is not duplicative work, does not require demolition and would have been funded in the original grant, had it been included as a part of the construction contract, may be processed in accordance with standard change order procedures."

## APPENDIX C
## WASTEWATER EQUIPMENT MANUFACTURERS' PROPOSED ACTION ITEMS

In addition to the previously mentioned specifics, there are problems and potential problems for the wastewater equipment industry that will impede any immediate increase in manufacturing activity. Accordingly, the following items also need administrative action:

1. Develop administrative methods to "fast track" a significant number of "equipment" grants without requiring legislative action.

2. Act promptly to correct reasons for delay in projects.

3. Act promptly on facility plan reviews or issue waiver after 90 days.

4. Continue to provide full EPA grant resources until state programs attain optimum awards level.

5. Make prompt decisions on ocean waivers.

AMERICAN CONSULTING ENGINEERS COUNCIL OF NEBRASKA, INC.
A Member Organization of
American Consulting Engineers Council

FERD E. ANDERSON JR., P.E.
Executive Director

(402) 397-1773
7701 Pacific Street, Room 311
Omaha, Nebraska 68114

November 26, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
B 376, Rayburn House Office Building
Washington, D.C. 20515

ATTENTION: Robert Prolman

Dear Mr. Mineta:

I request that this letter be included in the record of the recent hearings on the EPA Construction Grants Program.

The enclosed brief case histories of delays encountered in Nebraska during Steps 1 and 2, planning and design, show how excessive regulations or retroactive application of new regulations have slowed the accomplishments of the Clean Water Act. In these times, any delay of construction obviously inflates the project cost enormously.

As citizens who support a clean environment, as taxpayers who want efficient government, and as engineers who wish to make a living designing well-conceived water pollution abatement facilities, we request that you take every action possible to streamline the EPA Construction Grants Program.

Thank you.

Sincerely,

Ferd E. Anderson Jr

Ferd E. Anderson, Jr., P.E.
Executive Director

FEA:rg

Encls.

## EPA CONSTRUCTION GRANTS PROGRAM

Case Histories of Delays Encountered in the State and Federal Reviews of Step 1 and Step 2 or the Retroactive Application of New Regulations.

Case 1, Hastings, Nebraska (population 24,000) EPA Project No. 310556

Delays caused by multiple reviews at state and federal levels: The final plans and specifications (Step 2) were submitted for review and approval to the state and EPA in August, 1978 (FY 78). Because of the multiple reviews required the reviews were not completed until the end of April, 1979 (FY 79). Corrections in accordance with the review comments were returned to EPA in May, 1979 but final approval of the plans and specifications was not received until August, 1979. The project was then advertised for bids and bids were opened on October 19, 1979 (FY 80). A dispute on the bidding documentation with respect to Minority Business Enterprise requirements is now being resolved. Construction cannot start until the spring of 1980. The low apparently responsive bid of $11.8 million reflects the enormous impact of inflation when compared to the 1978 estimate of $7.2 million.

Case 2, Beatrice, Nebraska (population 12,500) EPA Project 310502

Delays caused by retroactive application of new regulations: The Facilities Plan (Step 1) was submitted by the grantee engineer to the state on August 23, 1977 after the Public Hearing held earlier in August. The Facilities Plan was approved by EPA and the engineering agreement for Step 2 was executed on February 6, 1978. At the same time a new EPA regulation was published requiring stabilization of sludge before land application. The approved Facilities Plan did not include such stabilization, but the engineer was not notified to make a change. In June, 1978, the engineer asked for a clarification on the application of the new regulation. On July 28, 1978 EPA directed that the Facilities Plan be revised and requested a study of alternatives to determine the cost effectiveness of stabilization of sludge. In August the engineer submitted a study of alternatives, but EPA disagreed with the study conclusions and on September 14, 1978 asked for a three-month composting demonstration. The grant increase to make the demonstration was not made by EPA until November 24, 1978. The demonstration started on November 27, 1978 with a report on the demonstration presented to the state and EPA on April 5, 1979. The city then requested funds for the Innovative and Alternative design for composting and concurrence to proceed with the design on April 23, 1979. On June 20, 1979 approval was given by EPA to revise the Step 2 grant application to include the composting design. If all the remaining steps in design, review and approval are completed expeditiously the first phase of the construction can start in the spring of 1980. EPA FY 1979 funds in the amount of $3,600,000 will be carried over into the FY 1980. The one year delay will raise the cost of the project by about 12% or more. The revised design will require more real estate and a second phase of construction.

Case 3, Omaha, Nebraska (population 375,000) EPA Project C 310821

Delays caused by multiple reviews and the imposition of new regulations during the planning and design process: On March 16, 1978, the City of Omaha filed a Setp 2 Grant Application to provide assistance in the funding of the second phase of the expansion of the Missouri River Wastewater Treatment Plant to secondary treatment. The proposal called for the design of the incinerator, water treatment facility, methane gas processing and storage facilities and ancillary process equipment.

June 2, 1978, the City of Omaha was advised that a sludge management study was necessary before the considerations would be made on the construction of the incinerator facilities. This request was formalized in letter form on August 21, 1978 by the Environmental Protection Agency, the requesting party.

The City of Omaha then proceeded with the Architects/Engineers selection process to secure the services of Culp/Wesner/Culp to provide the necessary expertise in completing the study. Applications for this study and subsequent Step 2 Grant applications were submitted on December 21, 1978.

The EPA, the requesting agency, did not make the grant offer until March 30, 1979. The delays were caused in state and EPA review of the Engineering Services Agreement and supporting documents for the study requested by EPA.

The grant offer was accepted and the consultant hired to begin the work; however, the grant offer included the requirements for Public Participation in the completion of the study which had previously not been anticipated.

The public participation considerations necessitated the request of a grant increase submitted May 23, 1979 in the additional amount of $34,050.00.

The term of the grant offer has necessarily been extended an additional month to complete. In addition, the failure to act on the Step 2 request for design of the incinerator facilities, has necessitated a shuffling of the logical order for construction of the phases at the plant and therefore, delayed construction during FY 79. For these and other reasons construction will not start until 1980.

It must be pointed out that the delay caused the city and the design consultant to re-examine the work yet to be completed, to prepare a new package for "Phase II", to negotiate new engineering agreements, to file new Step 2 and Step 3 applications, etc.

All delays resulted in increased construction costs and further delays in the 1983 mandated deadlines which the city must meet.

**Recommendations**

1. A fixed time limit on approvals of grant applications and other decision points is necessary to reduce the administrative dead time in the program.
2. New regulations should be applied to projects only prospectively.
3. EPA should streamline the procurement regulations for all communities.
4. With regard to small communities, EPA should reduce the complexity of Step 1 requirements.

CEC CONSULTING ENGINEERS COUNCIL OF IOWA
2900 WESTOWN PARKWAY, SUITE 2 • WEST DES MOINES, IOWA 50265 • 515-225-7966
ADDRESS REPLY TO:

November 26, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
B376, Rayburn House Office Building
Washington, D. C. 20515

Attention: Mr. Robert Prolman:

Dear Sir:

This letter is being forwarded to your attention to provide information for the Public Works Oversight Committee reviewing the management of the EPA Construction Grants Program. If appropriate, we would request that this information be included in the record of the recent hearings on the EPA Construction Grants Program.

In the State of Iowa, consulting engineers and the cities they represent have continually faced administrative problems with the wastewater program. The difficulties we have encountered have been considerable and frequent, to the extent that this past summer a delegation of consulting engineers and city officials visited with the Iowa delegation in Washington to review our concerns.

I have enclosed for your consideration four primary problem areas and suggested solutions that we have identified. In addition, I have enclosed a brief summary of the planning schedules for twenty Iowa projects which fairly represent the typical lead time Iowa communities are facing in completing a wastewater project funded under the EPA program.

In Iowa we most certainly appreciate the efforts of your committee and sincerely hope that some solutions can be accomplished. Compared to other federally funded programs, we have more problems in the wastewater area than all others combined.

Very truly yours,

Guy L. Patten
Executive Director

GLP:bds

Enclosures

CONSULTING ENGINEERS COUNCIL/IOWA

LEAGUE OF IOWA MUNICIPALITIES

WASTEWATER CONSTRUCTION GRANTS (TITLE 201) PROGRESS PROBLEMS

PROBLEM 1: RULE CHANGES

Frequent substitutive changes in EPA rules have created confusion and disillusionment as local governments attempt to protect the public's health at a reasonable cost.

RECOMMENDATION: EPA rules promulgated after a project has been initiated need not apply to that project if the rule will cause delays which will incur additional financial burdens.

Establish a clear mandate to require EPA to reduce frequency and quantity of proposed rules

PROBLEM 2: DELAYS

Changing standards and inefficient administrative procedures have, and are, causing unreasonably long project lives from grant approval to project competition.

RECOMMENDATION: Specify time limits for a complete submittal review, with automatic approval, if approval is not made by EPA within that time limit.

Require EPA to reallocate the funds if the state allotment is not committed (grant offer) to specific projects within the approximation period.

PROBLEM 3: DEFICIT FINANCING

Complying with EPA's complex rules does not insure that Federal funds will be received in a timely manner which will allow the local government to meet its financial obligations expeditiously.

RECOMMENDATION: Establish a six month line of credit to eliminate the city's deficit financing of federal project grants.

**PROBLEM 4:** **COMPLICATED PROCEDURES**

**Small cities experience extreme difficulty in staying informed and complying with complicated and ever changing EPA regulations and procedures.**

**RECOMMENDATION:** **Expedite grant approvals to small communities by substantially relaxing Federal Procurement Regulations (FPR) procedures for projects serving less than 25,000 population.**

**Encourage combination grants under Title II to expedite wastewater treatment projects. Many projects, especially in small communities would benefit in time and cost savings.**

## EXAMPLES

### WASTE WATER PROJECT SCHEDULES

**BELMOND**

| | |
|---|---|
| FEB 74 . . . . . | Initiated project |
| OCT 74 . . . . . | Facility plan submitted |
| JUNE 76 . . . . . | Step one grant received |
| JULY 77 . . . . . | Step two grant received |
| JUNE 78 . . . . . | Plans and specifications submitted |
| PRESENT . . . . . | No comments to date |

**BROOKLYN**

| | |
|---|---|
| 1971 . . . . . | Initiated study |
| 1976 . . . . . | Step one grant received |
| 1979 . . . . . | Placed on low priority - grant funds scheduled for fiscal 84-85 |

**DONNELLSON**

| | |
|---|---|
| 1975 . . . . . | Step one application submitted |
| 1978 . . . . . | Facility plan submitted |
| PRESENT . . . . . | Facility plan under review |

**GARNAVILLO**

| | |
|---|---|
| FEB 71 . . . . . | Initial project |
| 1978 . . . . . | SSES completed |
| PRESENT . . . . . | SSES under review |

**GRUNDY CENTER**

| | |
|---|---|
| 1970 . . . . . | Initial grant application filed |
| PRESENT . . . . . | Revising facility plan |

**INDEPENDENCE**

| | |
|---|---|
| JUNE 72 . . . . . | Preliminary engineering report completed |
| MAY 74 . . . . . | Step one grant offer |
| FEB 77 . . . . . | Step two grant offer |
| SEPT 78 . . . . . | Step three grant offer |
| PRESENT . . . . . | Under construction |

**LAKE CITY**

| | |
|---|---|
| APR 70 . . . . . | Initiated project |
| DEC 74 . . . . . | Submitted facility plan |
| SEPT 75 . . . . . | Facility plan updated |
| JUNE 76 . . . . . | Step one grant offer |
| AUG 78 . . . . . | SSES completed |
| PRESENT . . . . . | SSES under review |

**LE MARS**

| | |
|---|---|
| MAR 75 . . . . . | Initiated project |
| JAN 76 . . . . . | Facility plan submitted |
| MAY 77 . . . . . | Step two grant received |
| MAY 78 . . . . . | Plans and specifications submitted |
| APR 79 . . . . . | Received comments on plans and specifications |
| PRESENT . . . . . | Awaiting step three |

**MITCHELLVILLE**

| | |
|---|---|
| 1969 . . . . . | Initiated project |
| 1978 . . . . . | Facility plan authorized |
| 1979 . . . . . | Priority rating reduced, funding scheduled for fiscal 1986-87. |

**NASHUA**

| | |
|---|---|
| SEP 74 . . . . . | Step one application |
| DEC 75 . . . . . | Step one grant offer |
| JULY 78 . . . . . | Step two grant offer |
| FEB 79 . . . . . | Step three grant application |
| JUNE 79 . . . . . | Revised plans and specifications submitted to EPA |

**NEVADA**

| | |
|---|---|
| MAY 75 . . . . . | Grant application submitted to EPA |
| DEC 75 . . . . . | Step one grant awarded |
| JULY 76 . . . . . | I/I analysis approved by EPA. Authorization to proceed with SSES obtained |
| MAY 78 . . . . . | SSES summary report submitted to EPA along with a combined step 2 and 3 grant application |
| PRESENT . . . . . | SSES under review |

**NORWALK**

| | |
|---|---|
| OCT 76 . . . . . | Project initiated |
| APR 79 . . . . . | Step one grant received |

**OELWEIN**

| | |
|---|---|
| MAR 75 . . . . . | Initiated project |
| DEC 75 . . . . . | Step one grant received |
| DEC 75 . . . . . | I/I analysis submitted |
| MAR 78 . . . . . | SSES submitted |
| PRESENT . . . . . | SSES under review |

**RUNNELLS**

| | |
|---|---|
| 1969 . . . . . | Initiated project |
| 1976 . . . . . | Facility plan completed |
| 1979 . . . . . | Facility plan under review |

**SIOUX CENTER**

| | |
|---|---|
| JAN 71 . . . . . | Initiated project |
| JAN 75 . . . . . | Step one grant offer |
| 1979 . . . . . | Awaiting approval for step two |

**SOLON**

| | |
|---|---|
| 1973 . . . . . | Step one application submitted |
| NOV 78 . . . . . | Construction permit issued |
| PRESENT . . . . . | Step three pending |

**VINTON**

| | |
|---|---|
| 1973 . . . . . | Step one grant awarded |
| MAR 79 . . . . . | Received step two grant notification |

**WASHINGTON**

| | |
|---|---|
| SEP 75 . . . . . | Initiated project |
| APR 77 . . . . . | Facility plan submitted |
| PRESENT . . . . . | Facility plan being reviewed |

**WAVERLY**

| | |
|---|---|
| OCT 72 . . . . . | Initiated project |
| NOV 78 . . . . . | Construction started |
| PRESENT . . . . . | Under construction |

**WILTON**

| | |
|---|---|
| MAR 73 . . . . . | Initiated project |
| DEC 77 . . . . . | Work on facility plan halted |
| PRESENT . . . . . | Awaiting definition of design parameters (waste load allocation) before completing facility plan. |

MDW
MANSUR • DAUBERT • WILLIAMS, INC.
ARCHITECTS • CONSULTING ENGINEERS • PLANNERS
1648 S. BOSTON AVE. • TULSA, OKLAHOMA 74119 • (918) 584-0347

DEC 5 1979

November 30, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
B376 Rayburn House Office Building
Washington, D. C. 20515

Attn: Mr. Robert Prolman

Dear Mr. Mineta:

It is requested that this letter and its enclosures be included in the record of the recent hearings on the EPA Construction Grants Program. Enclosed are chronologies covering the Oklahoma Cities of Claremore, Commerce, and Inola. Observe that all three pertain to Step I only.

Our Consulting Engineering firm has served many communities over the past 32 years, providing engineering services leading to construction of wastewater collection and treatment systems. We have functioned successfully under every local, state and federal agency, to provide our clients with satisfactory engineering services -- except EPA.

One cannot avoid the conclusion that there is something seriously wrong with EPA and its "systems" when one considers that in the private sector, and in most all other government agencies, a major project can proceed through the stages of conception, preliminary studies, final design, advertising, and actual construction in less time than required for an EPA Step I Study.

The problems can be classified in four major categories:

1. Delays in decision-making by both State and Federal agencies. In EPA's zealous attempt to make every project flawless, and to protect themselves from criticism, they have inadvertently created project delays and economic disaster to some grantees. This problem could be corrected by Administrative action.

MDW

The Honorable Norman Mineta

November 30, 1979
Page 2

2. The application of new regulations retroactively to existing projects. A new regulation should not be permitted to apply to a project in progress, if application of said new regulation will cause a delay. If there is an over-riding and imperative reason for applying a new regulation, inspite of the delays it causes, the additional expense caused the grantee (and its contractors). should be paid-for 100% by EPA. This problem can, in most cases be corrected by Administrative action, in our opinion.

3. Inconsistencies and conflict between the State and EPA on interpretation of regulations. This problem can be corrected by Administrative action including a number of things:

   (a) Reform and reduce the number of regulations.
   (b) Decentralize the reviewing and approval authority from Regions to the States, giving the latter the authority to exercise engineering judgment.

4. Special problems of small communities. Much of this problem could be solved by Administrative action. However, action may be required by the Congress in order to give the Administrator the kind of flexibility we feel is needed.

   For example, it is obvious that the needs of a City of 2,000,000 population are drastically different from those of 2,000 population. Yet, the regulations, as now written, are applied rigidly uniformly.

In our opinion the regulations should have at least three broad population categories:

   (a) Communities larger than 25,000 population.
   (b) Communities between 25,000 and 5,000 population.
   (c) Communities under 5,000 population.

Also regulations should be reformed to give broad flexibility of application to take into account varying climatic conditions, geographic locations, and economic impacts.

MDW

The Honorable Norman Mineta

November 30, 1979
Page 3

Thank you for this opportunity of submitting these comments to your Sub-committee. It is hoped that you will do everything possible to break the bureaucratic log-jam which is impeding the nation's meritorious Pollution Control Program.

Very truly yours,

MANSUR-DAUBERT-WILLIAMS, INC.

Cline L. Mansur

Cline L. Mansur

CLM:cl
Encl.

62-985 O—80——75

CASE HISTORY
CLAREMORE, OKLAHOMA

Population 12,500 Step 3 Estimated Cost $8,300,000

| | |
|---|---|
| June 1974 | Step 1 Grant made to Regional Metropolitan Utility Authority including Tulsa, Claremore, and six other communities. Work begun. |
| March 1975 | I/I Analysis submitted to EPA. Claremore re-recommended as being non-excessive. |
| March 1976 | Step I package of I/I Analysis, Facilities Plan and Environmental Assessment submitted to State and EPA. |
| August 1976 | State refutes population forecasts and clarification of other points. |
| September 1976 | Claremore retains Engineer to make application for Step 2. |
| October 1976 | State advised RMUA and Claremore request that Step 1 deficiencies be cleared up in Step 2 phase following a "Provisional Approval" by State. Concurred. |
| January 1977 | Pre-application Conference held with Claremore, RMUA, State, EPA. State announced that they were beginning an in-depth review of the Step 1 study. EPA announced that they cannot accept a "conditionally approved" Step 1 study. |
| March 1977 | Step 2 application kit received by Claremore. Claremore submitted revision to population and flow figure. |
| April 1977 | EPA officially declared RMUA Step 1 not acceptable. Ordered public hearing May 1977. Claremore submitted supplement to population revision. |
| May 1977 | EPA Regional Administrator called public hearing for Step 1 for RMUA. Established AdHoc citizen's committee to insure adequate public participation, called for monthly meetings. |
| July 1977 | EPA, State, RMUA, Claremore met to discuss Step 1 deficiencies. EPA hinted possible increase in grant to complete. Claremore to determine costs. |

| | |
|---|---|
| August 1977 | EPA, State, RMUA, Claremore met. Claremore estimate scope to complete-$24,000. |
| September 1977 | Formal request for grant increase submitted. |
| January 1978 | EPA, State, RMUA, Claremore met. EPA refused grant increase, requested additional I/I analysis data. Agreed to population forecast as revised. |
| February 1978 | Supplemental data submitted to State, EPA. |
| March 1978 | State requests reducing design flow. Indian Nations Councils of Government completing 208 study showing Claremore population projection to be nearly double that accepted by EPA. Study hints that AWT might be required. |
| June 1978 | Revision of Supplemental Data submitted to state. Contains population flow, and I/I Analysis revisions. |
| August 1978 | EPA, RMUA, Claremore, State met to discuss completion of Step 1. Claremore again requested grant increase, EPA again denied increase except for I/I Survey. EPA concurs with finding of excessive I/I; wants to proceed with I/I Survey. |
| December 1978 | Claremore approves I/I Survey proposed, submits to state. |
| February 1979 | EPA approves I/I Survey proposed, submits to state. |
| September 1979 | Survey nearly complete. EPA requires that AWT be considered. Change order requested and approved. |
| October 1979 | Claremore requests another meeting to consider additional funding to complete Step 1. |
| November 1979 | Draft of SSES submitted to RMUA. |

(Claremore, Oklahoma)

| | |
|---|---|
| March 1978 | PRM 77-8 submitted, revised to meet 78-9. |
| September 1978 | Revised Facility Plan submitted to City. Held up pending possibility of gift of land. |
| February 1979 | Revised Facility Plan submitted to State, calls for aerated lagoons-storage-algae removal to meet 20-30. |
| May 1979 | State responds: EPA might not fund post-lagoon treatment. Forwarded to EPA after more justification required for PRM 79-7. Justification provided. |
| December 1979 | EPA review not complete after 180 days. |

(Commerce, Oklahoma)

CASE HISTORY
COMMERCE, OKLAHOMA

Population 2750 Step 3 Estimated Cost $380,000

| | |
|---|---|
| January 1974 | Step 1 application submitted to State EPA. |
| March 1974 | Step 1 grant offered, work begun. |
| September 1974 | Step 1 Study completed, submitted. I/I determined to be excessive; I/I Survey recommended. Land Application recommended. |
| January 1975 | State forwarded Plan to EPA who required request of Amended Step I/I Survey. |
| April 1975 | Request for I/I Survey as amendment submitted to State and EPA. |
| September 1975 | Amendment approved. |
| December 1975 | City passed $200,000 bond issue anticipating Step 2 and Step 3. |
| August 1976 | I/I Survey submitted to State. |
| November 1976 | State requested more data, revision of Survey. |
| December 1976 | Revision, data submitted; reviewed by State. |
| February 1977 | State forwarded I/I Survey to EPA. |
| May 1977 | State and EPA announced new lagoon effluent standards, requested revision of Facility Plan to include study of lagoons as alternate. Revise I/I Survey for lagoon treatment. City was refused funding for additional study. |
| July 1977 | I/I Survey revised, re-submitted. |
| November 1977 | EPA requires more data for I/I Survey. |
| December 1977 | EPA issues PRM 77-8, requires compliance. |
| January 1978 | I/I Survey approved. |

CASE HISTORY
INOLA, OKLAHOMA

Population 1250 Step 3 Estimated Cost $300,000

| | |
|---|---|
| September 1975 | Step 1 application filed with State and EPA. |
| November 1975 | Step 1 Grant offered, work begun. |
| December 1976 | I/I Analysis submitted to State. |
| March 1977 | State approved I/I Analysis as non-excessive. |
| May 1977 | Facility Plan and Environmental Assessment submitted to State. Plan called for construction of lagoon system at new location. |
| September 1977 | State returned Plan, disagreed with population and selection of alternate, required study upgrading existing lagoons. Town refused to consider upgrade even though cost-effective. |
| January 1978 | State and EPA suggested desired site might be acceptable on basis of less negative impact. |
| May 1978 | Revised Facility Plan submitted to State, with justification rewritten. |
| June 1978 | State rejected Plan stating EPA can accept only the most cost-effective plan. Town refused to accept State decision. |
| May 1979 | After many meetings, Town approves Facility Plan with alternate acceptable to EPA. Plan submitted to State, June 1, 1979. |
| June 1979 | EPA disallows State approval of I/I Analysis, given in March 1977; requests more data. |
| July 1979 | State forwards Plan to EPA. |
| October 1979 | EPA approved I/I Analysis; review of Facility Plan and Environmental Assessment continuing. |
| December 1979 | Review not complete after 120 days. |

BILL ROYER
17TH DISTRICT, CALIFORNIA
WASHINGTON OFFICE:
1522 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-3531
COMMITTEES:
PUBLIC WORKS AND TRANSPORTATION
SCIENCE AND TECHNOLOGY

**Congress of the United States**
**House of Representatives**
**Washington, D.C. 20515**

DISTRICT OFFICES:
BAY VIEW PLAZA
2121 SOUTH EL CAMINO REAL, SUITE 410
SAN MATEO, CALIFORNIA 94403
(415) 349-1979

DALY CITY CITY HALL
90TH AND SULLIVAN AVENUE
DALY CITY, CALIFORNIA 94015
(415) 992-4500 EXT. 355

November 27, 1979

Honorable Norman Y. Mineta
Chairman, Oversight & Review
313 Cannon HOB
Washington, D.C. 20515

Re: Oversight & Review Hearings on Construction Grants Program

Dear Norm:

After the subcommittee hearings that were held at the end of October on the EPA's implementation of the Construction Grants Program under the Clean Water Act, I met with local officials in my district who have been involved with local sewage treatment facilities. Pursuant to my request they provided me with written comments concerning their experiences with the program at the local level. These comments are from equipment manufacturers, consulting engineers as well as an official who actually operates a facility. I am submitting these comments for inclusion in the record because I believe they provide a cogent representation of the kinds of problems that are encountered at the local level under the Construction Grants Program. Many of the individual comments parallel the comments made at the hearings and indicate the pervasiveness of the complaints we heard in Washington.

I appreciate the opportunity to submit these comments and believe they provide a valuable addition to our review of this important federal program.

Yours very truly,

Bill

BILL ROYER
Member of Congress

BR/cr

Enclosures

AD HOC COMMITTEE
WASTEWATER TREATMENT CHIEF EXECUTIVES

ISSUES AND PROBLEMS CONFRONTING
WATER POLLUTION CONTROL INDUSTRY

To be presented to EPA Administrator,
Congressional Heads and The White House

October 31, 1979

ATTENDEES:

Mr. Robert L. Chambers
Chairman
ENVIROTECH CORPORATION

Mr. Robert H. Malott
Chairman and Chief Executive
FMC CORPORATION

Mr. Nathan R. Owen
Chairman
GENERAL SIGNAL CORPORATION

Mr. John E. McConnaughy, Jr.
Chairman and Chief Executive
PEABODY INTERNATIONAL

Mr. R.V. Krikorian
Vice Chairman and Chief
Executive Officer
REXNORD

Mr. Michael D. Dingman
Chairman and President
WHEELABRATOR-FRYE INC.

October 1979

## ISSUES AND PROBLEMS CONFRONTING WATER POLLUTION CONTROL INDUSTRY

Current EPA policies and procedures have created a dearth of projects coming to bid and are making it impractical for major companies to supply equipment for water pollution control. As a result, our nation may lose benefits that accrue from technology and reliability provided by responsible equipment manufacturers.

Traditionally in the market for water pollution control equipment, consulting engineers have exercised their professional judgment to provide experienced analyses of alternative processes, systems and equipment in order to most economically serve their clients' long run interests. Now, however, EPA regulations and procedures have largely pre-empted the consulting engineers' professional perogatives -- to the detriment of municipalities, manufacturers and the program grantees.

For example, administrative hostility to anything other than "wide open" specifications has fostered irresponsible bidding, has diminished quality and reliability of equipment, has caused "profitless prosperity" in the wastewater equipment manufacturing industry, and has contributed to litigation during construction.

As another example, administrative over-emphasis on initial capital cost has inhibited procurement of equipment that balances initial cost with energy consumption and operating costs (such as maintenance and parts availability, and non-quantifiable factors) over the life cycle of a treatment facility. In addition, the present bias against higher initial cost systems eliminates the incentive of equipment manufacturers to invest funds in development of energy-conserving processes or equipment that reduce operating and maintenance costs -- indeed, to even allocate corporate resources to supply equipment for this market.

Specific items of concern are:

I. Bid-qualification Procedures: Restraints on the professional discretion of consulting engineers has permitted irresponsible and unethical bidding to go unchecked. Qualification procedures, recently approved by the EPA, need to be aggressively encouraged and additional measures need to be taken to curb unethical and destructive post-award "bid shopping".

II. Procurement of "innovative or alternative" wastewater treatment systems: Although provided by the Clean Water Act, such procurements by and large are precluded by aversion to "sole source" -- even though sole sourcing is authorized by present regulations [40 CFR 35.908(d)] and widely practiced by other federal agencies to obtain "what is best in the long run".

From a pragmatic standpoint, sole source procurement is necessary so that communities can assure themselves of obtaining desired innovative technology at bid time. Municipalities will not take the risk of trying new technologies unless sole source procurements can be made -- because they are acutely aware that new technology often requires the expertise and incentive of the originator to make the technology work in a reliable form.

III. Unwarranted EPA emphasis on land techniques: Currently, there exists an "administrative presumption" in favor of land application techniques. This has resulted in a formidable barrier to full consideration of equipment-based technology. As matters now stand, proposals for projects that do not utilize land treatment must include proof that land techniques are not applicable. This has caused great delay, necessitating project re-design and re-submittals of grant requests. In fact, there is no basis in statute or legislative history to support this administrative

emphasis on "nature intensive" processes to the exclusion of other technology. (To the contrary, energy recovery systems were recognized as "alternative technology" by the Committee reporting the 1977 amendments to the Act.)

IV. Progress Payments and Retentions: Present EPA policy allows grantees discretion in providing progress payments to manufacturers of specially-designed equipment. As a result, municipalities must be individually persuaded by equipment manufacturers to avail themselves of this cost-reducing mechanism.

Mandatory progress payments would result in substantially lower costs since the burden of high interest rates during facility construction would not be borne by municipalities and manufacturers (and, ultimately, by the grant program and the federal government).

In addition, there are often costly and unfair withholdings of retentions from equipment suppliers and contractors. A simple solution is substitution of bonds or demand letters of credit in lieu of cash retentions.

V. Litigation: As described in the attached Appendix B, litigation has added substantial costs to the construction of sewage treatment facilities. The litigation results from, on the one hand, "wide open" bid specifications that fail to adequately define equipment and systems and, on the other hand, "catch-all responsibility" for future uncertainties on projects that has been increasingly placed on manufacturers.

* * *

In addition to the above-mentioned specifics, delays in award of grants, and delays in bringing projects to the bid stage, have caused severe problems for wastewater equipment manufacturers. Factors causing such costly postponements include (a) the above-mentioned unwarranted emphasis on land treatment; and (b) over-emphasis on low initial cost systems. This latter problem was, we believe, caused by over-reaction to the "two brand name or equal" provision in the Act.

If responsible companies are to continue supplying equipment for all applications of municipal wastewater treatment, prompt action must be taken to resolve the problems listed above. Completing the cleanup job should be the compelling objective, not the pursuit of theoretical business concepts which have so effectively slowed it down.

In order to sustain the interest of these manufacturers, it is important that some plan for monitoring progress be adopted. This can be worked out between the EPA and our appointed representatives.

The appendices attached recommend specific action, language, or other changes appropriate for correcting these problems.

October, 1979

APPENDIX A

WASTEWATER EQUIPMENT MANUFACTURERS' PROPOSED ACTION ITEMS
(Roman Numerals Keyed to "Issues and Problems" Summary)

I. The Administrator should require grantees to adopt the EPA's recently approved bid qualification procedures (unless the grantee shows that such procedures are inappropriate for its project). The Administrator also should issue a Program Requirements Memorandum stating that naming of manufacturers in bid documents shall be encouraged and interpreted as being for the purpose of (1) identifying bidders who are qualified to produce that item, and (2) preventing post-award bid shopping.

II. To expedite implementation of the Innovative Technology Program, the current regulatory provision, which reads as follows:

> "A determination by the Regional Administrator under this section that innovative criteria have been met will serve as the basis for sole source procurement (see §35.936-13(b)) for step 3, if appropriate, to achieve the objective of demonstrating innovative technology. [40 CFR 35.908(d)]. (Emphasis added.)

should be amended to read:

> "A request by a grantee to demonstrate innovative technology will serve as the basis for sole source procurement of the technology under Step 3 unless denied by a Regional Administrator as inappropriate. In all other instances, the Regional Administrator shall determine that appropriate steps are being taken to achieve the objective of demonstrating innovative technology."

III. For projects exceeding 5 mgd, EPA should waive the requirements of Program Requirements Memorandum 79-5 that grant applicants "be required to provide complete justification for the rejection of land treatment". (Emphasis added.)

IV. EPA should:

A. Mandate Progress Payments from the federal share of funding (rather than letting such payments be permissive by the grantee).

B. Adopt regulations requiring grantees to accept instruments (such as "demand" retention bonds or "demand" irrevocable letters of credit) in place of cash retentions of the federal share. This can be accomplished by amending 40 CFR 35.938-7(a)(3), Retention from Progress Payments, which currently reads:

> "When the work is substantially complete (operational or beneficial occupancy), the withheld amount shall be further reduced below 5 percent to only that amount necessary to assure completion."

by adding:

> "and demand bonds or equivalent will be substituted for retention at the request of the contractor or supplier (through the contractor)."

V. Regarding litigation, please see attached Appendix B.

## APPENDIX B
## LITIGATION ON MUNICIPAL WASTE TREATMENT JOBS

1. In the last few years there has been a dramatic increase in litigation involving the construction under the EPA grants program of sewage treatment plants for municipalities.

2. Each municipal waste treatment job involves several parties -- all with a common interest but each working under different conditions:

   Municipal grantee
   EPA
   Consulting engineer
   General contractor
   Equipment suppliers
   Subcontractors

3. A modern waste treatment facility is essentially a complex multiple-stage processing plant with a biological step which is designed to reflect the state of the art. As with any continuous process plant with variable influent and required effluent, such a plant will not necessarily function satisfactorily when the "ON" button is pushed. Balancing adjustments, and frequently modifications, are necessary. This is true of similar industrial plants.

4. Because the municipality generally proceeds on the thesis that it has a fixed price contract to effect a specific result, it is not usually receptive to the delays and cost of corrections even though

often the problem could not have been anticipated by the participating parties, and is not clearly the fault of any of the parties.

5. If the corrections by the general contractor or equipment supplier are not made promptly -- and action is delayed because it is generally difficult to assess exactly which of the parties involved is responsible -- the municipality institutes a civil suit, frequently naming one, two or all of the involved participants. Often the city handles such a suit through its own legal department, making the legal costs to the city small. The defendants normally are obliged to employ local legal counsel at tremendous expense to supplement their own legal staff.

6. Once in court, correction of the plant problems and achievement of water quality objectives are delayed, the costs of such correction increase (if only by equipment deterioration and inflation), and legal costs multiply.

The frequency of such suits is another factor discouraging responsible equipment suppliers from assuming municipal waste treatment contracts. The problem is so serious it requires immediate attention and correction.

At least two positive steps could be taken to reverse this trend of increased litigation:

-- The EPA, by directive, can advance water quality objectives by supporting the position that litigation should be only a last resort for municipalities -- that municipalities should participate in trying to

achieve a workable, practical solution to the problems that surface at the time of the completion of its sewage treatment plant, and that litigation should be used only when one or more of the parties is clearly at fault and is unwilling to correct its deficiencies.*

-- Since almost all jobs involving construction of sewage treatment plants require some adjustments or modifications at the time of completion (because they are state-of-the-art and may have different influent characteristics from that expected), EPA grants should provide for a reserve of, say, 10%. Regulations should be developed to provide a sound basis for the use of such reserve funds to correct any problems which could not have been anticipated, were not due to gross negligence or cannot readily be identified as the fault of one of the parties involved.

Such a new procedure would accelerate the achievement of desired effluent standards, and greatly reduce unnecessary litigation expense. The EPA should also review present litigation problems and provide supplemental funds for those cases where the responsibility is not clearly one of willful neglect.

* NOTE: EPA's recent action authorizing change orders for certain aspects of Niagara Falls plant is a positive step, e.g., "...modifications to the plant, to improve operations maintenance, etc., which is not duplicative work, does not require demolition and would have been funded in the original grant, had it been included as a part of the construction contract, may be processed in accordance with standard change order procedures."

63-935 O—80——76

## APPENDIX C
## WASTEWATER EQUIPMENT MANUFACTURERS' PROPOSED ACTION ITEMS

In addition to the previously mentioned specifics, there are problems and potential problems for the wastewater equipment industry that will impede any immediate increase in manufacturing activity. Accordingly, the following items also need administrative action:

1. Develop administrative methods to "fast track" a significant number of "equipment" grants without requiring legislative action.

2. Act promptly to correct reasons for delay in projects.

3. Act promptly on facility plan reviews or issue waiver after 90 days.

4. Continue to provide full EPA grant resources until state programs attain optimum awards level.

5. Make prompt decisions on ocean waivers.

Resources Engineering & Management

Consulting Engineers

November 26, 1979

Congressman William Royer
2121 South El Camino Real
Suite 410
San Mateo, CA 94403

NOV 27 1979

Attention: Mr. Michael Barrett

Dear Congressman Royer:

Please accept my appreciation for the opportunity to participate in your meeting with local sewer agency officials concerning the effectiveness of the Clean Water Grant Program on the local level. First I would like to say that in spite of the "horror stories" that we can all cite, I believe that the program is a useful one; and that California through its State Water Resources Control Board should be proud of its role in the implementation of an extremely complex program.

Having spent many years working both in local government and with a consultant firm that assists local governmental agencies in implementing the Clean Water Grant Program, I feel that I am in a position to state that the consensus of local feelings that I have observed is one of frustration.

First, a sense of frustration with the sets of conflicting criteria that must be met to achieve water, air and noise standards.

Second, a sense of frustration with the implementing regulations and guidelines that appear designed to "protect" the program from some "element" that may unjustly profit from the program rather than designed to achieve it designated purpose of cleaning the waters of the U.S.

Third, a sense of frustration with the same implementing regulations and guidelines that appear designed to implement "social change" rather than produce cost effective projects.

Fourth, a sense of frustration that in those areas where it makes sense to complete the process and provide reclaimed water for beneficial uses funding priorities are continually in a state of flux.

Lastly, a sense of frustration and nagging fear that what has been achieved will on the long term be lost if adequate attention and funding is not given to programs that will train and provide

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assistance to local agency personnel that are responsible to operate the sophisticated facilities that are being constructed today.

To this end I would suggest implementation of several pilot programs that would require implementation of certain specific goals of the clean water grant program but would leave the means for achieving these goals to the implementing local agencies. The EPA and state agencies could monitor both the effectiveness of the local agencies in the implementation of their goals and evaluate the true effectiveness of the ever expanding regulations that presently exist.

Very truly yours,

RESOURCES ENGINEERING & MANAGEMENT
Consulting Engineers

ROBERT R. EPPLER, P.E.
Principal

RRE/jab

**JENKS & HARRISON**
CONSULTING SANITARY & CIVIL ENGINEERS
543 BYRON STREET · PALO ALTO, CALIFORNIA 94301 · 415 [illegible]

JOHN H. JENKS, P.E.
BLAINE L. HARRISON, P.E.
BRUCE M. WYCKOFF, P.E.
DEUEL A. BATSFORD, P.E.
RICHARD E. DOWD, P.E.
FRANK R. REYNOLDS
PAUL L. ADAMSON, P.E.
SPECIAL CONSULTANT

November 13, 1979

NOV 14 1979

Congressman Bill Royer
Bayview Plaza
2121 S. El Camino Real, Suite 410
San Mateo, CA 94403

Attention: Mr. Michael J. Barrett, Field Representative

Dear Bill:

Thank you for the opportunity of meeting with you and others concerned with Federal EPA Clean Water Grant Program problems last Friday in your San Mateo office.

You asked that we provide you with written comments summarizing our thoughts expressed to you. I am pleased to do so as follows:

1. An overall concern that I and many others have developed is that EPA is in reality not accountable to anyone nor any agency with technical expertise.

   In my estimation, this lack of accountability may be the single most contributing factor to the numerous decisions resulting in regulations which are impractical, costly, unwarranted, and cause delays.

   A current example of this is in respect to proposed EPA water quality criteria for toxic pollutants. The criteria, as presently being proposed for nation-wide imposition, clearly are separated from technological and economic feasibility considerations, as well as ascertainable benefits. Applying these criteria as enforceable standards, as is presently being proposed, will unquestionably create all sorts of mischief with the Clean Water Grant program, including delays as agencies attempt to find means of satisfying what will probably prove to be impossible standards.

   The point here is that EPA can, does, and will continue to issue regulations such as noted herein in the absence of some form of review and approval by those responsible and knowledgeable in the field. EPA does go through a process of public review as well as committee review, but it appears that this process is mere form, with very little in the way of responsiveness, again to those knowledgeable in the field.

   The foregoing considerations have led me and others to the conclusion that Congress would do well to intervene with some form of legislation which mandates EPA to subject all proposed new regulations to a technical

review committee, composed of responsible and knowledgeable representatives, covering a broad area of disciplines. This Committee should also be in a position to make qualified judgments as to how new regulations serve the interests of Congressional intent. The need for this latter perspective can be seen in the fundamental change in EPA policy recently which virtually rules out local water reclamation projects.

To a regrettably significant extent, the problem of unwise EPA regulations in the past may be uncorrectable at this time. However, bringing in a strong accountability factor, even at this late date, could further the cause of avoiding additional problems of additional costs and time delays in the future.

2. Along with many others, including all those present at your meeting last week, I believe that the obsessive concern by EPA against "sole source" specifications has created, and continues to create, all sorts of havoc to the Clean Water Grant Program. This havoc can be seen in terms of delays, as well as project operation.

The problem here, as discussed with you, is EPA limiting of "experience clauses" in specifications. This elimination of experience as a criteria for supplying equipment has had devastating effects. In the first place, the efforts to essentially eliminate "sole source" specifications through EPA regulations have resulted in protests on almost a majority of projects. These protests by equipment suppliers mostly result in time-consuming and costly delays in awarding contracts and getting on with the job.

In the second place, by encouraging equipment suppliers with no demonstrated experience, we find that projects are being subjected to almost unbelievable equipment failures, failures which then result in inability of plants to meet requirements. The equipment failures also serve to delay project acceptance. We have one project, for instance, costing 22 million dollars, which was completed over two years ago and placed into operation. The project still has not been accepted from the building Contractor as the result of continuing major equipment failures, failures of equipment from low bidders who have no prior record of successful experience. Unfortunately, this is very typical of EPA Clean Water Grant projects.

The foregoing condition leads me and many others to the conclusion that somehow Congress should prevail upon EPA to abandon its obsession against experience clauses for Clean Water Grant projects. It may cost somewhat more money to have equipment which has been tested and proven to be successful, but there is a certainty that the costs, in terms of time delay, actual money, and meeting of clean water objectives, resulting from having to correct deficiencies caused by unsatisfactory, untested equipment, are many times more than any real or imagined savings from unrestricted specifications.

3. We talked about the fact that the EPA Clean Water Grant Program in reality is no longer a program with the primary objective of cleaning up the waters of the nation in the most expeditious and economical way possible. The realities are that the "Clean Water Grant Program" is actually a Social Program, with its major aim to correct a whole series of assumed social and environmental ills. The imposition of multitudes of extraneous conditions on Clean Water grants has unquestionably resulted in tremendous and costly delays. Our East Bay Dischargers Authority program may be a good example of this, where insistence by EPA to perform an independent Environmental Impact Statement which centered upon matters of local land use resulted in probably two years of construction delays and possible 30 million dollars of cost due to escalation.

   This condition, of course, is not new to you and, as with many aspects of the Clean Water Grant program, it may be too late to make substantive corrections. It would seem appropriate, however, that Congress consider clarifying the intent of PL 92-500 to declare its primary purpose to be that of "cleaning up the waters of the nation", and that the program should not be used as a vehicle to correct other problems which could be corrected through other means.

4. We discussed the matter of EPA regulations being applied retroactively. It would seem to be self-evident that application of new regulations would serve to create problems, some of which may be insurmountable (the Pacifica situation is a good case in point).

   In my estimation, we have just begun to experience the severity of problems which are and will be created by application of EPA regulations retroactively. One area where these problems will be seen most prominently is through EPA final audits. I predict that there will be fiscal havoc in unprecedented proportions as EPA auditors make their final audits (usually several years after project completion) and declare major portions of projects non-grant eligible by applying standards not applicable at the time of project design and construction.

   The foregoing conditions lead me and others to conclude that Congress, on behalf of local sewering agencies, should declare to EPA that Clean Water Grant regulations should not be applied retroactively.

5. We discussed the matter of EPA now virtually excluding water reclamation as being EPA grant eligible. This represents a significant departure from earlier application of the regulations as presumably reflecting the intent of Congress. Particularly in the State of California, where wastewater reclamation for beneficial reuse is such an important element of our overall water resources program, the recent EPA regulations virtually eliminating reclamation, are disruptive.

While one can understand the theory of OMB, that Congress intended Clean Water Grant funds to be limited to universal "secondary treatment" projects, as with the case of retroactively applied EPA regulations, precipitous stopping of current reclamation projects creates all sorts of problems.

It would seem to me that consideration should be given by Congress to either: 1) declare that it is the intent of Congress that water reclamation be an appropriate element of the Clean Water Grant Program (where shown to be cost-effective), or at least, 2) that all those reclamation projects which are in progress as part of previously approved Clean Water Grant projects be supported to conclusion.

While many of us have viewed what we believe to be a continuously expanding series of EPA Clean Water Grant Program deficiencies which accounts for the evident failure of the Program to meet objectives, it is heartening to know that efforts by individual, responsible members of Congress, like yourself, are expending efforts to correct the deficiencies. I trust that the information and comments offered hereinabove will be of assistance to you in the foregoing regard.

Sincerely yours,

JENKS & HARRISON

John H. Jenks

JHJ:hrm

cc: City of Redwood City, James Fales
City of San Mateo, Robert Bezzant
City of San Carlos, C. Robert Allen

NORTH SAN MATEO COUNTY SANITATION DISTRICT
153 LAKE MERCED BOULEVARD, DALY CITY, CALIFORNIA 94015
PHONE: 783-6527

NOV 29 1979

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COLLECTION SYSTEMS SUPERINTENDENT

November 27, 1979

Congressman William Royer
2121 South El Camino Real, Suite 410
San Mateo, California 94403

Attention: Mr. Michael Barrett

Dear Congressman Royer:

I wish to express my thanks on behalf of the North San Mateo County Sanitation District for the opportunity to participate in your meeting with local sewering agency officials. In response to your request for "specifics" where individual members of Congress may provide input into the implementation of the Clean Water Grant Program, I wish to reiterate my concern with one of the "social programs" that by staff edict have found their way into the implementation regulations on the Federal and State level. As the chief administrative officer of a 17 million dollar facility constructed under the Clean Water Grant Program, I wish to express the frustrations experienced in obtaining "workable" equipment under a bidding requirement which allows subcontractors with firms and/or material suppliers with no history and/or a poor performance record to provide equipment only on the basis of price.

The result at the local level has been that it is extremely difficult, if not impossible, to resolve satisfactorily cases where the manufacturer's representative, through lack of experience or inability, cannot make their equipment work. After two years of operation the North San Mateo County Sanitation District still has some equipment that fails to meet design performance requirements. These failures cost the local agency time and money in its operation.

Any steps that can be taken to allow local agencies some latitude in designating the use of proven equipment will certainly improve the long term reliability of those facilities on which the Federal government is spending large sums of money to construct.

Very truly yours,

PETER M. ARCHULETA
District Manager

PMA:lsb

MAILGRAM SERVICE CENTER
MIDDLETOWN, VA. 22645

Mailgram

4-0465738205002 07/24/79 ICS IPMRNCZ CBP 8FOB
1 4157556557 MGM TDRN DALY CITY CA 07-24 0248P EST

NORTH SAN MATEO COUNTY CSN
153 LAKE MERCED BLVD
DALY CITY CA 94015

REC'D JUL 25 19

THIS MAILGRAM IS A CONFIRMATION COPY OF THE FOLLOWING MESSAGE:

4157556557 MGM TDRN DALY CITY CA 173 07-24 0248P EST
ZIP
NEPTUNE MICROFLOX INC
PO BOX 611
CORVALLIS OR 97330
GENTLEMEN;

WE HAVE MET ON SEVERAL OCCASIONS TO DISCUSS VARIOUS EQUIPMENT THAT HAVE NOT OPERATED PROPERLY OR WE HAVE HAD SEVERAL BREAK DOWNS ON THEM. WE ARE AWARE PROGRESS HAS BEEN MADE TO ELIMINATE THOSE PROBLEMS BUT ONE PIECE OF EQUIPMENT TO DATE HAS NOT BEEN RESOLVED. THAT EQUIMENT DEALS WITH POLYMER MIXERS PROVIDED FOR BY NEPTUNE MICROFLOX.

THIS ITEM HAS APPEARED OVER AND OVER AGAIN ON OUR PUNCH LIST WITH NO PROGRESS OR RESOLUTIN WHATSOEVER. IT APPEARS THE TIME HAS COME FOR THE DISTRICT TO TAKE A STRONGER STAND AND ASK BOTH YOU GENTLEMEN TO NOTIFY THE MANUFACTURER THAT WE WOULD LIKE THE EQUIPMENT REMOVED AND REIMBURSED MONETARILY FOR THE EQUIPMENT.

IT IS NOT WORKING NOW AND NEVER HAS WORKED PROPERLY NOR DO WE EXPECT IT TO EVER OPERATE ACCORDING TO THE MANUFACTURER SPECIFICATION.

I WOULD HOPE THAT WE CAN HAVE SOME RESOLUTIONS TO THIS PROBLEM BY JULY 30,1979 MEETING.

VERY TRULY YOURS,

PETER ARCHULETA
<DISTRICT MANAGER<NORTH SAN MATEO COUNTY<SANITATION DISTRICT

14149 EST

MGMCOMP MGM

TO REPLY BY MAILGRAM, SEE REVERSE SIDE FOR WESTERN UNION'S TOLL - FREE PHONE NUMBERS

neptune microfloc 1965 Airport Road, P.O. Box 612 • Corvallis, Oregon 97330

(503) 753-9501
TELEX 36-0697

REPLY TO:
[redacted]

August 3, 1979

North San Mateo County Sanitation District
153 Lake Merced Blvd.
Daly City, CA 94015

Attention: Mr. Pete Archuleta
District Manager

RECD AUG 06 1979

Ref: NMI C3350

Gentlemen:

This will confirm our meeting in the District's offices on August 1 relative to the recurring problems with the two Chemix Polymer mixing units originally furnished by Neptune Microfloc for this project.

We acknowledge that the problems with both units have been a source of frustration to the District, as well as to Microfloc. The problems we have encoutered here are puzzling to us, and certainly not indicative of the general experience we have had with the Chemix product line. Several hundred successful Chemix installations have demonstrated the unquestionable serviceability of Chemix and attracted a strong following for this product line.

We would like to prove the capabilities of Chemix to the District, and accordingly have agreed to the following course of action as discussed in our meeting:

1. Neptune Microfloc will replace both existing DB8 Chemix units with new units at no charge to the District.

2. Installation including piping and wiring to the units, will be by District personnel at your expense.

3. Checkout and start-up of the new units will be by Neptune Microfloc at our expense.

4. Expense for return of the existing units to our factory will be borne by Neptune Microfloc, Inc.

The replacement Chemix units will carry our standard new product warranty of one year from date of installation.

neptune microflor

It was agreed in the meeting that the replacement units would be accepted by the District after 6 months of successful operation with no major operational or mechanical problems.

The replacement units are currently undergoing final checkout in our Corvallis factory and will be available for shipment to Daly City approximately August 15. You will be notified of our shipping schedule shortly.

We appreciate the District's patience. With your cooperation, I hope that we can look forward to a trouble-free service life with the replacement units and another successful Chemix installation. Please get in touch with me should you have any questions.

Very truly yours,

J. Schaefers

Joseph L. Schaefers
Western Regional Sales Manager

cc: J. Larsen, Corvallis
M. Bierek, Corvallis
Homer J. Olsen Co.
2726 Lynch Way
P.O. Box 993
Union City, CA 94587
Attn: Mr. Bill Johnson

JS/savk

October 18, 1979

SUBJECT: CHEMIX POLYMER MIXERS

Date: October 4, 1979: put mixer for the air flotation thickener on line.

Date: October 5, 1979: put mixer for the centrifuge on line. As soon as power to the dump valve came on the valve started smoking. Contacted Mr. Taylor at Neptune Microfloc; he said he would contact his service department. Mr. Montgomery, service representative, called--said he knew what the problem was and will replace the valve soon.

Date: October 18, 1979: air flotation mixer was taken out of service because the vibrator stopped feeding polymer.

Date: October 18, 1979: talked to Jim Larsen, Neptune's Oregon office re. breakdown of equipment. He said he would call Mike Huculak on 10-19-79 at 9:00 a.m. and get on the problem for a resolution. ( talked to Mr. Larsen, he said lower the speed of the mixer. Did not help.)

Date: October 29, 1979: centrifuge mixer taken out of service, not feeding the proper amount of polymer.

Date: November 2, 1979: serviceman from Neptune Microfloc worked on both mixers, both back in service.

Date: November 21, 1979: air flotation mixer taken out of service, not feeding the proper amount of polymer.

Date: November 28, 1979: as of this date the air flotation mixer has run 35 days out of 59 days, the centrifuge mixer has run 42 days out of 59.

PA:lsb

SOUTH BAYSIDE SYSTEM AUTHORITY

JOINT POWERS AUTHORITY
150 Monte Vista Drive • San Carlos, California 94070 • 415 / 591-7121

City of Belmont
Menlo Park Sanitary District
City of Redwood City
City of San Carlos

December 10, 1979

DEC 17 '79

Congressman Bill Royer
Bayview Office Plaza
2121 S. El Camino Real, Suite 410
San Mateo, CA 94403

Attention: Michael J. Barrett, Field Representative

Dear Bill:

At your meeting of November 9, 1979, relative to a discussion of the Clean Water Grant Program you requested written comments as well as examples of problems that we feel exist.

In addition to our comments, we are including with this letter a memorandum written by our Attorney, Dave Schricker.

Process Equipment Selection

Due to permissive specifications which currently allow unqualified, inexperienced vendors and suppliers to submit quotations for furnishing (and sometimes installing) complex process equipment, severe long-term operation problems are almost always created. EPA's aversion to "sole source" or "specified source" procurement from qualified and experienced manufacturers is permitting a large number of treatment plants to be constructed which will never perform properly, incur excessive and escalating O & M costs, and generally be non-efficient throughout their life cycle. It must be remembered that it is with 100% local dollars that plant operating costs are funded. In addition, the lowest "first-cost" approach which is required to be employed in the selection of equipment is, of necessity, not conducive to obtaining quality products. It may well be that the lack of profitability of the water pollution control equipment manufacturers due to excessive and price-cutting competition is not in the long term national interest.

It is also apparent to us that in many cases there are sound reasons for selecting a specific vendor's product over another even if the desired vendor is not the "lowest bidder." Possibly it would avoid a diverse variety of a single type of equipment in a plant or sewer system. Even more significant, it may permit an obviously better product to be selected. An example of this to which we can relate is the solids handling system provided for the new SBSA Plant. Sludge treatment and disposal historically can be the most difficult and expensive process in wastewater treatment. In an urban area, the process becomes more complicated due to the lack of options available for disposal. The solids disposal equipment alone for the SBSA Plant is valued at more than $2,900,000 and will require more operator time and chemicals than any other single process; therefore, the

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system reliability is critical to the successful economic operation of the entire facility. Because of Federal grant regulations and policy, the engineer and owner are severely restricted in their efforts to obtain high quality, work-proven equipment. EPA program memorandum states that experience clauses are not allowable in bid specifications because they prevent the entrance of new firms and innovations. Who would want to be the first in line to buy an expensive automobile from a firm that has never built one before?

The contractor at both the SBSA and San Mateo Plants was able to select suppliers for many component systems that were not specified in the contract documents. These suppliers were allowed because they "packaged" a system by purchasing the component parts from several sources. While the suppliers may be highly experienced in one portion of the package, they frequently have no experience in the "system" product. This may result in a lower bid price but in no way encourages lower long-term operating and maintenance costs.

Additionally, EPA's auditors attitude that the process equipment belongs to them is difficult to deal with when they request refunds years later for equipment removed and disposed of after it has had to be replaced because it was not a good product to start with. This practice must cease.

Finally, we also are convinced that in many cases the contractor is the party least qualified to select the process equipment to be supplied. That is partly because of both the lowest "first-cost" philosophy of public contracts and also due to the nearly indescribable range of experience and ability of the contractors that bid on public wastewater treatment plants. Perhaps some pre-qualification should be employed in this area as well. We can cite some obvious examples which discretion prohibits us from revealing publicly.

Retroactivity

Auditing

It has been of great assistance in local planning and operations to receive promptly the monthly progress payments due the grantee. However, it has been an area of concern to us and potential distress to be in the position of being at the mercy of uninformed auditors years later who are performing the final audit. We are not questioning or commenting on their adequacy or competency, but it is very difficult for us to conceive that at some distant point in time downstream they can properly delve into complex matters which have often been decided by professionals of sound judgment or settled by joint and sincere negotiations between contracting parties. These potential reversals of past decisions can be costly and tedious to rectify through appeal.

Regulations

As the guidelines are constantly being modified, amended and "massaged", an area of controversy has been created by the retroactive application of guidelines, rules and regulations currently in force to projects initiated and contracts executed prior to the effective dates of these current guidelines, rules and regulations. This practice again causes grief because usually local agencies are requested to "fork over" additional funds retroactively.

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Regulations (Con'd)

Another retroactive application which is causing some problems on our project is relative to the requirement several years ago of converting and renegotiating all engineering contracts. Due to many factors, we will shortly be requesting additional funds for our Engineer for both Step 2 and Step 3 phases of their contracts and we expect to encounter some difficulty over this. Initially their contract was on a different basis which has been since discontinued by the EPA. Although a savings in cost did result, some consideration should be given to the many variables which exist in performing and administering engineering contracts.

Resolution of Disputes

The present EPA position in the matter of resolution of disputes is a source of great concern to SBSA. As you probably know, we have already undergone two contractor initiated job shutdowns due to a major contract dispute which has resulted in a difficultly negotiated contract change order of nearly $3,000,000. While this settlement has been made and agreed to by the contracting parties and work has once more resumed, it was (and is) the position of the non-local funding agencies that we resolve the dispute first and come to them with an agreement for their funding approval. At this time, if for any reason the contract change is not grant-funded it will be the responsibility of the four local agencies of SBSA to fully fund the change. Fortunately we have taken some necessary and legal precautions with the contractor in this regard but the constant legal posturing during all this period has had a detrimental effect on resolution of disputes. Thus, a shutdown of the work is practically encouraged and presumed by the regulations anytime a dispute becomes of such magnitude that it cannot be resolved readily. The lack of State and Federal participation and/or a positive expression of faith in the judgment of professionals from the owner and the Engineer to resolve the dispute equitably is the crux of this impasse. Agreements made conditional on grant-funding usually do not pass the test and can always be overruled by future audit. We can recount a very painful scenario to you relating to this project which we trust does not become anymore painful to us.

Contract Administration

SBSA, in part because of our problems with the contractor arising from the major dispute previously referred to, has retained a consultant who functions for the owner as a Contract Performance Advisor. This allows SBSA to obtain advice and guidance from a third party other than our Engineer. This is extremely helpful especially in cases where disputes arise between our Engineer and the contractor. Specific tasks performed by this consultant include participation in the evaluation of major change orders, making recommendations regarding contract administration procedures, advising on contract correspondence, analyzing contractor's schedule and performance for compliance with required project progress and for evaluation of time extension requests, and assisting in the evaluation of progress payment requests. In general, we have found that this has been a helpful service to us and recommend that consideration be given which permits unequivocal grant funding for this function (we expect no problems, however, in this regard on this project). Moreover, we would encourage that further

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SOUTH BAYSIDE SYSTEM AUTHORITY

Congressman Bill Royer
December 11, 1979
Page 4

consideration be given the general acceptance of this type of consultant at some point in the Step 2 process. We have found this beneficial in this project with some of our contracts to be advertised next year. A significant point here is that in utilizing such a consultant their contract should be directly with the owner so as to retain an independent, though cooperative, relationship with the Engineer.

We feel and expect to find that this arrangement on this project is both beneficial and cost-effective and would encourage that the pertinent rules and regulations be modified to more readily permit the employment of such a Contract Advisor on reasonably complex and/or large projects and that each project requesting a grant application be made to consider whether this service is required.

We are pleased with your Office's continuing attention and concern with the problems of Local Government. We look forward to continuing our mutual efforts in areas of public concern.

Very truly yours,

Charles R. Allen
Interim-Manager

CRA/jtp

cc SBSA Commission Members
Advisory Committee
Kennedy/Jenks, Project Engineers
James Bewley, SBSA Superintendent
Joseph Covello, Jacobs Associates

Enclosure

63-935 O—80——77

DON FUQUA
3D DISTRICT
FLORIDA

2400 Rayburn House Office Building
Washington, D.C. 20515

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

NOV 1 1979

October 31, 1979

Honorable Norman Y. Mineta
Chairman, Subcommittee on Oversight and Review
House Committee on Public Works and Transportation
B-376 Rayburn House Office Building
Washington, D. C. 20515

Dear Mr. Chairman:

During your hearings on the municipal wastewater construction grants program, I thought it would be appropriate to provide you with a copy of a brochure prepared by the Florida Institute of Consulting Engineers.

I found the material most informative and enlightening and recommend it to you for your review and possible consideration in the record of the subcommittee's hearings.

Sincerely,

DON FUQUA
Member of Congress

DF/Bcg
Enclosure

ANDY IRELAND
[illegible], FLORIDA

[illegible]
[illegible]
[illegible]

[illegible]
FOREIGN AFFAIRS
SMALL BUSINESS
ASSISTANT MAJORITY WHIP

**Congress of the United States**
**House of Representatives**
**Washington, D.C. 20515**

DISTRICT OFFICES
WINTER HAVEN, FLORIDA [illegible]
[illegible]
P.O. Box [illegible]
[illegible]

BRADENTON, FLORIDA [illegible]
[illegible]
P.O. Box [illegible]
[illegible]

SARASOTA, FLORIDA [illegible]
[illegible]
P.O. Box [illegible]
[illegible]

LAKELAND, FLORIDA [illegible]
[illegible]
[illegible]

November 7, 1979

RECEIVED
NOV 14 1979
CONG. NORMAN Y. MINETA

Honorable Norman Y. Mineta, Chairman
House Subcommittee on Oversight and Review
B-376 Rayburn House Office Bldg.
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed is material my constituent, Mr. Donald J. Smally, would like to submit to your subcommittee regarding the municipal wastewater treatment construction grants program.

I hope you will consider his concerns as you examine the information you obtained at your hearings and recommend further action.

I'd appreciate it if you would continue to keep me advised of your efforts on this matter.

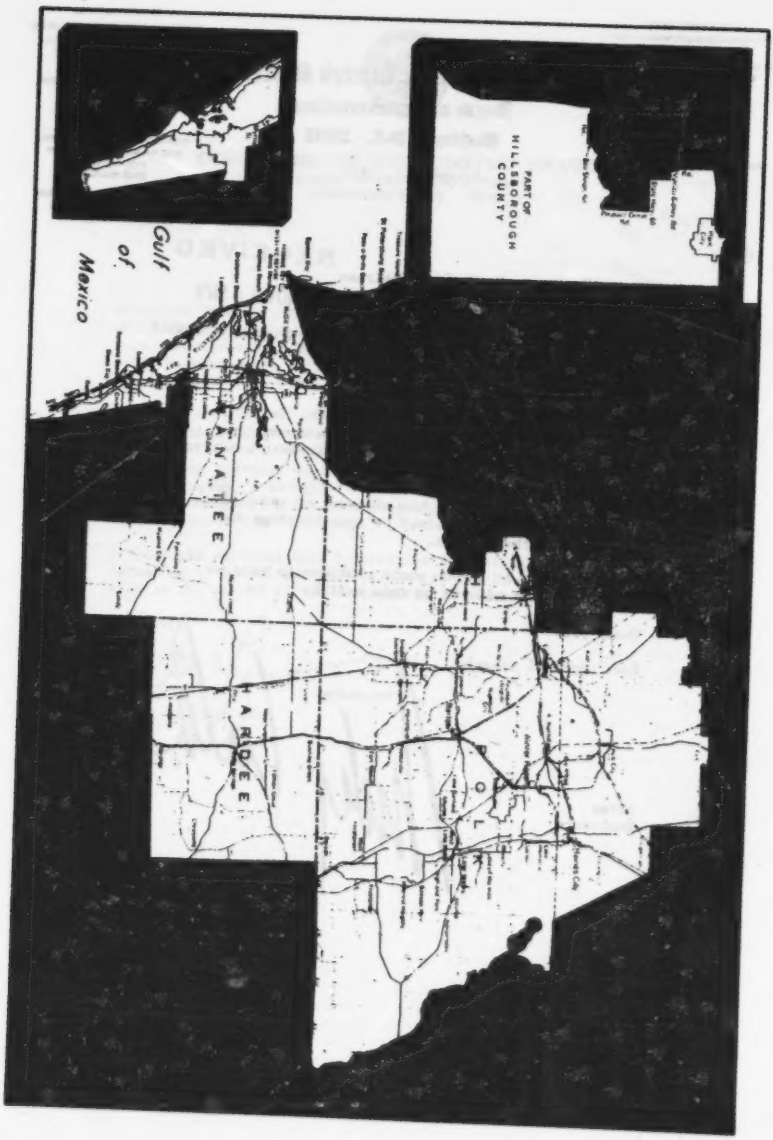
Thank you.

Best personal regards.

Sincerely,

Andy Ireland

AI:sy
Enclosure


PART OF
HILLSBOROUGH
COUNTY
Gulf
of
Mexico
HARDEE

Brochure on

# OPERATION: PUMPJ

## Program to Untangle Municipal Projects

under EPA Wastewater Treatment Grants

Prepared for the

**FLORIDA CONGRESSIONAL DELEGATION**

by

Florida Institute of Consulting Engineers

July 1979

Suite 106 - 1311 Executive Center Drive
Tallahassee, Florida 32301

# OPERATION: PUMP

## Program to Untangle Municipal Projects under EPA Wastewater Treatment Grants

**Background Information**

The federal construction grants program to assist in the planning and construction of publicly owned wastewater treatment facilities was originally established by the Water Pollution Control Act of 1956 (Public Law 84-660). It was administered by the Surgeon General of the Public Health Service under the aegis of the Secretary of Health Education and Welfare and provided for technical and financial assistance. The primary responsibility for control and prevention of water pollution was in the hands of the states. Public Law 84-660 was amended in 1961, 1965 and 1966 and the level of federal funding was increased over those years to 33 1/3 percent of eligible project costs.

The administration of the construction grants program was transferred to the Environmental Protection Agency (E.P.A.) in December 1970 and in October 1972 Congress enacted Public Law 92-500, which superseded Public Law 84-660. The purpose of P.L. 92-500 was essentially the same as P.L. 84-660, however, it established definite water quality goals, including target dates and raised the level of federal assistance to 75 percent of the total cost of planning and construction of publicly owned wastewater treatment facility projects.

With the passage of 92-500 the impact of the construction grants program expanded tremendously. Unfortunately, this expansion has resulted in continually more voluminous, complicated and complex responses from grantees, their engineers and contractors, and state agencies to accommodate the grant program requirements.

Florida has been allocated $1,073,286,100 in grant funds for distribution to local governments to assist in planning, design and construction of wastewater treatment facilities since passage of P.L. 92-500. In FY 1980, the state anticipates receiving $145,790,800 in additional P.L. 92-500 funds (presuming Congress authorizes adequate Federal funds). The Florida FY 1980 Project Priority List already reflects applications for $119,294,000 in grant funds in 1980. An additional $100 million in 1980 requests is expected for additional projects which will become eligible for funding in 1980. Projects now in the planning stage and which expect to be eligible for funding in 1981-86 will total an additional $800 million in grant fund requests.

Obviously a program of this magnitude is of great importance to the citizens of Florida. It has been and continues to be, of great benefit to communities throughout the state. The state priority listing of municipal projects scheduled to receive funding in FY 1980 and those projects being planned for FY 1981-86 is included as an attachment.

Of the $1,073,286,100 in grant funds allocated to Florida local governments to date, only $926,088,353 (86%) has been obligated by E.P.A. and based on national figures it is conservatively estimated that less than one-half of that amount has actually been spent. We are aware of no fully completed sewage treatment facilities in Florida that were begun under the 92-500 Grant Assistance Program.

Indeed, the commitment and utilization of these grant funds has been very slow and marked by unreasonable delays, voluminous and inconsistently applied regulations and questionable efforts to regulate engineering, construction and other firms' procedures for doing business. These problems have increased costs to the taxpayer, delayed the achievement of water quality objectives and allowed inflation to greatly erode the value of the grant funds.

The engineering profession has traditionally worked closely with government agencies to exchange ideas. E.P.A. has been no exception. However, while talks with E.P.A. have covered a wide range of subjects, there have been limited points of real agreement. Frequently engineering organizations have agreed to accept an E.P.A. concept or program on the basis that it was better than even worse alternatives which were proposed. The current situation has caused many engineering firms, as well as municipal officials, to think twice about participating in E.P.A. funded projects.

With this background, the state organizations comprising the American Consulting Engineers Council decided to make a coordinated effort to discuss the problems being encountered in their states with members of their Congressional delegations. The purpose of these discussions is to explain these problems; to make several constructive recommendations and to seek the assistance of their Congressional representatives in helping untangle the problems and red tape that have ensnarled the P.L. 92-500 construction grants program. If successful, this effort will be of tremendous benefit to grantees, contractors, engineers, state officials, and others working with the program as well as to affected taxpayers and other citizens interested in achieving sound, adequate water pollution control in a timely, realistic and cost-effective manner.

The following pages include a proposal for a long range policy and five other proposals (information on blue paper) which, if pursued, could immediately decrease the time delays and excessive requirements presently being encountered under the existing construction grant program policies. Such efforts would greatly reduce the significant impact of inflation, and decrease project costs considerably, as well as decrease the costs to state and federal agencies administering the program.

The long range policy and five proposals directed at current P.L. 92-500 construction grant program procedures have been carefully and thoughtfully prepared and merit close consideration. The five short term proposals for immediate implementation are certainly not the only regulatory procedures which we believe should properly be revised or eliminated, but represent the items of concern which we feel would start to untangle the lack of progress in this program. The long range policy proposal drastically modifies the present construction grants program and embodies a major change which we feel would address the broad array of problems and difficulties that the program is laboring under today.

**OPERATION: PUMPJ**

**Program to Untangle Municipal Projects** under EPA Wastewater Treatment Grants

**ACEC ISSUE PAPERS:**

**Problems and Recommendations**

**To Improve the EPA Construction Grants Program**

**Overview**

The national goals, specified in the Clean Water Act, as amended in 1977, included the policy statement that the states manage the construction grants program, not EPA. The latest restatement of regulations for administering the Construction Grants Program (40 C.F.R., Part 35, September 27, 1978) reiterates that grant assistance made available under Title II of the Act "is to assist municipalities in meeting enforceable requirements of the Act," namely the NPDES standards. Part 30 of the Federal Regulations for EPA also states that "It is EPA policy that, consistent with the protection of the public interest, procedures used in administering and implementing grant programs shall encourage the minimization of paperwork . . . and the best use of available manpower and funds to prevent needless duplication and unnecessary delays" (emphasis added)(40 C.F.R. 30.200).

The record of the Construction Grants Program, however, has been for EPA, in accord with other Congressional authority and directives, to manage the program through the regional offices by expanding national regulations. The complexity and cost to grantee municipalities of construction treatment facilities has increased to the point where many grantees have come to question the value of federal assistance. The paperwork, duplication and project delays have also greatly increased. This is perhaps best measured by the record of projects, obligations and completions using EPA statistics.

Of $4.2 billion appropriated in FY '79, EPA has obligated only $867 million at the end of the second quarter. However, even more significant than the $3.3 billion of FY '79 funds are the $2.7 billion of past fiscal years' funds, $2.2 billion of which must be realloted on October 1 unless the obligation period is extended.

The project grants are certainly out there awaiting approval. But many have had to be reviewed, verified against a new checklist, even redone, based on the latest regulations. There are 10,800 active projects by EPA's count. Almost half are Step 1 facilities plans. Sixteen hundred are Step 2 designs and almost 4,000 are Step 3 construction projects. What EPA numbers don't reveal is how many of these projects languish between steps waiting for review, for audits, for rechecking to determine if new criteria have been

met for innovative and alternative technology, energy saving, infiltration/inflow, cost effectiveness, advanced secondary treatment (as opposed to advanced wastewater treatment), adequate public participation, minority business participation, industrial cost recovery and user charge schedules, among others.

This endless list of complex technical and administrative requirements is an awesome challenge to municipal officials and their engineers. But they must also be approved for correct interpretation by state agency staff and EPA federal regional staff. It is not surprising that differences of opinion about the application of regulatory requirements occur among local governments, states and federal regional interpreters. It is even less surprising that substantial differences in interpretation about the meaning and application of the same regulation occur among EPA federal regions.

Completed facility plans (Step 1 projects) have awaited state and EPA regional approval for over a year. Similar cases are common for completed designs. Some examples of delays of this magnitude are attached in subsequent parts of this brochure. (See data on gold colored paper.)

EPA's own figures on Step 3 projects awaiting construction as of April 1979 state that 373 projects, totalling almost $1.5 billion, have been delayed for more than six months, almost half for more than 18 months. Many of these projects are delayed for local legal and administrative reasons, but a significant number are due to compliance problems with EPA regulations. Meanwhile, inflation in construction costs averaging one to two percent per month reduces the value of local funds, as well as federal assistance.

Where are these projects and how big are they? Most of these projects are located in small towns. Grant awards under the Clean Water Act (again based on EPA's numbers) total 15,587 (as of March 1979). Forty-nine percent (7,633) of local assistance grants were made to communities with a population of less than 3,500. An additional 17 percent to communities under 10,000 and 12 percent more to localities between 10,000 and 25,000. In fact, 78.4 percent of all grants awarded by EPA were made to communities of 25,000 or less. It is estimated by EPA that 88 percent of all the treatment plants which exist now, or will be required to meet the Clean Water Act goals, will be smaller than one million gallons/day (mgd), enough to serve a town of approximately 20,000. Yet these communities are "regulated" by the same administrative burden to qualify for federal assistance as the largest cities.

If this is the grant history of the Clean Water Act, and the future as well, according to EPA's own projections, why does this program need hundreds of pages of federal regulations, Program Requirements Memoranda (PRMs), policy statements and other guidance?

It is not asserted here that wastewater treatment is easy to implement. It is not and it requires substantial expertise. The research

efforts of EPA, the states, consulting engineers, universities and private industry have been prodigious. But the application of research and technology to the specialized local problems of each community, attempting to deal with its pollution problems and meet the mandated water quality standards, cannot be accomplished by more pages in the "Federal Register".

EPA's Assistant Administrator for Water and Waste Management admitted at a recent forum for engineers and local water quality officials, "Water quality programs are very diverse and messy to administer; the steps and decision points are very complicated to chart." He cited four challenges facing EPA: "federal- (meaning EPA-) state relations; EPA's management capability; credibility of the (Construction Grants) Program; and EPA's ability to change." In the opinion of many local officials and engineers, EPA's track record on these four criteria is not good.

Only 15 of the 50 states have negotiated delegation agreements under Section 205 of the Clean Water Act to take over administration of the grants program from EPA, and some of these are conditional. But state management will not necessarily simplify or relieve the administrative burden on grantees. The federal regulations still apply and in some states -- Maryland for one -- even more restrictive policies have been added on top of EPA's. EPA's management capability and the program's credibility need not be commented on further. How about EPA's ability to change? Regulatory reform is under study in all government agencies, but even the Assistant Administrator sees "no substantial changes" in EPA programs in the near future. "The water program needs more stability."

EPA should be held to its willingness and ability to change. Issue papers on specific strategies to improve the Construction Grants Program follow. This is a Program to Untangle Municipal Projects.

**OPERATION: PUMP**

**Program to Untangle Municipal Projects** under EPA Wastewater Treatment Grants

LONG-RANGE STRATEGY FOR THE EPA/CONGRESS PROJECT (PUMP)

REPLACE THE EPA CONSTRUCTION GRANTS PROGRAM
WITH A SIMPLE, LOCAL CERTIFICATION PROGRAM,
SUCH AS THE LOCAL PUBLIC WORKS PROGRAM
ADMINISTERED BY THE ECONOMIC DEVELOPMENT ADMINISTRATION,
U.S. DEPARTMENT OF COMMERCE

Issue

The complexity and bureaucracy of the Construction Grants Program is, itself, an obstacle to the realization of the goals of the Clean Water Act. The immensely complex bureaucratic structure which EPA and the Congress have created to assure that EPA controls the Construction Grants Program has caused consternation, frustration and anger among grantees, their engineers and their contractors. Regulatory controls on the grants program has also slowed the pace of federal obligations and $6.9 billion remains unobligated from current and past fiscal year appropriations. At the same time, inflation in construction costs erodes the value of federal, as well as local dollars, at the rate of 12 to 24 percent per year.

Legal References

Included in the national goals and policy statements in Section 101 of the Clean Water Act is a provision which is rarely cited by EPA:

> It is the national policy, that to the maximum extent possible, the procedures utilized for implementing this Act shall encourage the drastic minimization of paperwork and interagency decision procedures and the best use of available manpower and funds so as to prevent needless duplication and unnecessary delays at all levels of government.

EPA has failed to meet every objective within this policy. EPA has maximized paperwork. EPA's procedures have wasted manpower and funds. They have caused unnecessary duplication, especially in the review and approval requirements of grant awards, facilities plans, construction specifications, etc. Most importantly, they have created excessive delays at all levels of government -- local, state and regional -- at considerable cost to taxpayers at all levels.

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**Discussion**

If the Construction Grants Program, with all its myriad controls, checkpoints, review strategies and approval requirements is not the answer, what is? A possible model is suggested in the Local Public Works Jobs Program of 1976 and 1977. Although not intended as a program to clean up the environment, or any other long-range goal, the LPW program obligated and distributed over $6 billion in two fiscal years. Included in this amount was $700 million specifically earmarked for water pollution control. Section 301 of the Local Public Works Act authorized $700 million to carry out activities under the EPA Construction Grants Program in those states experiencing greater than national average unemployment. The funds were appropriated, in addition to appropriations for EPA, in that fiscal year and were not subject to the reallotment requirements of the Clean Water Act.

How was the LPW Program able to efficiently and quickly obligate $6 billion over two fiscal years? The answer is relatively simple. Because of the exigencies of the Act, EDA set up a simple, local certification procedure. It trusted localities and states, as responsible governments, to properly administer funds provided by EDA through a set of simple guidelines and procedures. EDA relied on OMB Circular A-102's Cost Principles Applicable to Grants and Contracts with State and Local Government. EDA also established simple reporting requirements, adequate for purposes of assuring that no fraud or other misappropriation or mismanagement of funds occurred. Specific non-allowable costs, i.e., acquisition of land, rights or way or easements, were established, based on program objectives.

EPA Assistant Administrator Thomas Jorling has stated that he is proud of the fact that the Construction Grants Program "has been accomplished without the faintest hint of scandal" -- a statement which is not entirely accurate. When all the audits are complete, the EDA program, hopefully, will have produced the same result with far less bureaucratic cost and delay.

With regard to payments, EDA set up a specific, simple payment structure, which advanced 50 percent of the project cost to the locality, upon inception of the project, and the remaining 50 percent when the project was certified to be 40 percent complete. EDA also had specific procedures to insure that projected budgets were not padded for "underruns" and retained the authority to withhold substantial percentages of the final 50 percent if certification and job completion progress indicated that a substantial underrun would occur in the project.

It was primarily because of EDA's efficiency in obligating and administering the LPW program that President Carter chose EDA as the focus for his proposed Department of Development.

Can EPA set up a LPW-type program? The objectives of the Clean Water Act and the LPW program are very different. It is not

suggested here that the necessary planning, careful design work, effective construction management and operation and maintenance requirements of the Clean Water Act be abandoned. EPA has properly set up performance criteria related to long-run pollution controls systems necessary to meet the objectives of the Act. However, EPA is primarily a regulatory and enforcement agency.

Despite the offer of technical and legal assistance to states and localities mandated by the Act and regulations, grantees are reluctant to call on EPA to assist their pollution control programs because EPA is also responsible for enforcement of the discharge permits and standards which each locality must meet through its treatment system. EPA's enforcement responsibility, in fact, may have created an irreconcilable internal agency conflict when it comes to properly administering an assistance program. Federal assistance has traditionally been offered to local governments as an incentive to accomplish positive objectives. EPA enforcement mechanisms impose sanctions. While EPA very effectively pulls on the string of enforcement, it is extremely difficult to push on the string of assistance.

Analysis of life-cycle costs of public and private facilities proves that quality engineering saves money in the long run. The efforts of EPA to minimize costs at the planning and design specification stage must inevitably produce higher life-cycle costs for the localities which must operate and maintain waste treatment systems constructed with federal funds. This result will certainly not fulfill the goals and policies of the Clean Water Act.

**Recommendations**

Congress should conduct a series of oversight hearings on the Construction Grants Program to solicit and analyze improvements to the remaining authorization of the Clean Water Act.

Congress should also request the Office of Technology Assessment and the General Accounting Office to review the Construction Grants Program and analyze the impact of EPA's administration of the program on the realization of the goals of the Act.

Congress should consider, in reauthorizing Title II of the Clean Water Act, an LPW-type program which relies on a simple certification process of local governments to procure the technical services required to meet the standards established by EPA.

**OPERATION: PUMPS**

**Program to Untangle Municipal Projects** under EPA Wastewater Treatment Grants

RETROACTIVE APPLICATION OF REGULATIONS TO EPA PROJECTS

Issue

EPA regulations and Program Requirements Memoranda (PRMs) are retroactively applied to construction grants projects, creating unnecessary delay and increased costs to grantees and their engineers. New regulations and PRMs are applied to completed facility plans and designs during the EPA review period. Grantees and their engineers are then told to re-do work under new regulations, in some cases as long as a year after locally-approved plans and designs are submitted to EPA.

Legal References

Section 501(a) of the Clean Water Act authorizes the Administrator to prescribe such regulations "as are necessary to carry out his functions under this Act." Other specific sections of the Clean Water Act prescribe specific deadlines for the issuance of certain regulations relative to innovative and alternative technology, recreation and open space opportunities related to sewage treatment systems, eligible reserve capacity related to 208 plans, industrial cost recovery and state allotments, all of which required that regulations be issued by September 30, 1978, the date when these sections took effect.

Discussion

EPA has continuously issued and revised its regulations since the Clean Water Act took effect in 1972. The following timetable indicates how often major sections of regulations, under which the Construction Grants Program is administered, have been amended:

| Part Number (40 C.F.R.) | Effective Date |
|---|---|
| 30 -- General Grant Regulations and Procedures | June 10, 1975<br>Revised -- May 20, 1976; Sep. 1, 1976; Dec. 27, 1976 |
| 33 -- Subagreements | March 31, 1977 (interim rules)<br>Oct. 1, 1977 (final rules) |
| 35 -- State and Local Assistance (Grants for Construction of Treatment Works, Subpart E only) | Feb. 11, 1974<br>Revised -- May 6, 1974; Dec. 17, 1975; Major Revision -- Sep. 27, 1978 |

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It must be remembered that during this period, EPA was also publishing and republishing regulations related to the Section 208 Areawide Water Quality Planning, the Section 303 State Basin Plans and, most recently, the Section 101 Citizen Participation Requirements.

EPA management of the program has also been accomplished by PRMs, PGMs and the so-called Manual of References. Seventy-three PRMs or PGMs have been issued since 1973. At least 48 deal directly with the technical interpretation of Clean Water Act statutory requirements, cost allowability and management instructions to regional EPA staff.

Some of the PRMs have been revised and reissued almost on an annual basis. As a result, the guidance value to grantees and their engineers and, more importantly, to state and EPA regional reviewers, is not only limited, but often counterproductive.

Section 505 of the Clean Water Act -- Citizen Suits -- is unique to environmental legislation among other federal assistance programs to localities. Under it, citizens' organizations are given the authority to file suits in federal district courts against EPA and against localities for failure to administer or implement the law. The principal impact of such suits, as they relate to EPA regulations, has been for citizens' groups to sue EPA when deadlines established by Congress for the issuance of regulations or for the effective date of new provisions of the Act, expire without EPA taking action on them. The Environmental Protection Agency has learned by bitter experience that citizens' groups, under provisions of Section 505, win many of these kinds of suits. They are therefore driven to issue regulations and PRMs under extremely tight time deadlines. Public comment periods are often as short as 30 days. The result is that EPA sometimes has limited input on the impact which the implementation of the regulations will have on the administration of the Construction Grants Program.

The publishing dates for EPA final rules are often only days before the effective dates of the rules. In some instances, rules are promulgated as "interim" (meaning "effective immediately") with the prospect of their being changed after brief use. The publication of new regulations causes confusion and consternation in state and federal regional offices charged with implementing the rules. This has happened so often in recent years that the issuance of new regulations virtually brings to a standstill all decision making by the states and EPA until they can determine what the rules actually mean. This is necessary because a mistake in interpretation could bring a citizens' group into federal court, naming a state, the Administrator of EPA to enforce the interpretation which the citizens' group feels is the correct one. Unfortunately, this interpretation may not be, in fact, what Congress or EPA intended in issuing the original regulations.

Under current procedures, it may take a year or more to complete a Step 1 facilities plan. After an approval period of anywhere

from six months to a year, a Step 2 design grant is awarded. The design will often take one to two years to complete, and then an application for a Step 3 Construction Grant can be submitted to the states and EPA. After additional delay, the Construction Grant will perhaps be awarded and then the process of advertising of bids, selecting contractors, etc., will commence. The time between a facilities plan grant application and commencement of construction is often four or five years. Virtually every regulation in Parts 30, 33 and 35, in five years, has undergone major revision at least once.

The critical question is, when these regulations take effect how do they impact projects already underway?

Attached are several case histories citing the impact of new regulations and PRMs after the completion of a facilities plan and the impact which retroactive application of regulations had in creating delays in the completion of projects, and the costs of these delays to the locality and to the locality's engineer.

Recommendations

Congress should amend the Clean Water Act to add an additional section to Title V under Section 501 to read as follows: "The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act, but no such regulations may take effect in less than 180 days after the date published as a final rule in the 'Federal Register'."

The Clean Water Act should also be amended by adding a new section to Title II -- Grants for Construction of Treatment Works -- at the end of Section 201, specifying that "no project approved and in progress will be amended to re-do any part of the scope of work required by new EPA regulations or other guidance documents, unless requested by the grantee, if such change will increase the cost by more than $10,000 and/or would delay the final completion date in the project's schedule by more than 30 days."

Section 201 should be further amended to include language to the effect that all costs resulting from a change in regulations or PRMs issued while a project is in progress which cause a change in the scope of work, schedule of completion or other significant component of a project grant or the contracts issued by a grantee thereto shall be incurred by EPA and may not be applied to the grantee or his contractors to their detriment.

NEW SMYRNA BEACH, FLORIDA
WASTEWATER TREATMENT PLANT EXPANSION

| | |
|---|---|
| April 26, 1972 | Grant application submitted to state. |
| Jan. 5, 1973 | Application revised due to change in EPA forms. |
| May 9, 1973 | Application revised due to change in program from P.L. 84-660 to P.L. 92-500. |
| Dec. 26, 1973 | Application revised to comply with EPA requirements for separate step grants. |
| Oct. 2, 1974 | Application revised due to change in EPA forms and regulations. |
| June 23, 1975 | Application revised due to change in EPA regulations. |
| Sept. 23, 1975 | 201 plan required as a condition for a Step 2 grant. |
| Feb. 19, 1976 | Step 1 grant applied for. |
| July 2, 1976 | Step 2 grant offer received from EPA. |
| July 8, 1976 | Step 1 grant offer received from EPA. |
| May 18, 1977 | Application for Step 3 grant submitted. |
| June 30, 1977 | Step 3 grant offer received from EPA. |
| Nov. 10, 1977 | Project advertised for bid. |
| Nov. 23, 1977 | Construction contract awarded. |
| Nov. 23, 1977 | Bid protest filed. |
| Dec. 21, 1977 | Bid protest hearing conducted. |
| Mar. 2, 1978 | 201 Plan submitted to state. |
| Mar. 10, 1978 | Second bid protest hearing conducted. |
| Apr. 18, 1978 | EPA requires project to be rebid. |
| May 26, 1978 | EPA notifies city that final grant offer decision delayed pending completion of waste load allocation study. |
| June 26, 1978 | EPA and state change waste load allocation for receiving waters which changes plant requirements from nitrification to secondary treatment, necessitating redesign of plant. |
| Aug. 18, 1978 | Step 1 and Step 2 addenda grant applications submitted. |
| Sept. 21, 1978 | Step 2 addendum application returned pending successful completion of Step 1 addendum application. |
| Jan. 2, 1979 | Step 1 addendum grant offer received. |
| Mar. 28, 1979 | Final draft of Step 1 addendum and Step 2 addendum application submitted. |

63-935 O—80——78

| | |
|---|---|
| Apr. 25, 1979 | Public hearing on Step 1 addendum. |
| May 24, 1979 | Step 2 application certified to EPA by state. |
| May 25, 1979 | EPA approves Step 2 application with grant offer to follow. |

The long, drawn-out approval process and continually changing requirements, which necessitated numerous application changes and resubmittals, tied this project up to the point that the project, which was once at the point of construction, is now being redesigned to meet new discharge requirements.

PINELLAS COUNTY, FLORIDA
McKAY CREEK STP

| | |
|---|---|
| May 12, 1972 | Grant application submitted. |
| Sept. 13, 1972 | Revised grant application submitted due to requirement for use of new E.P.A. forms. |
| Dec. 31, 1973 | Revised grant application submitted following 15 months of negotiations and discussions with E.P.A. |
| March 4, 1976 | Revised grant application required due to new E.P.A. guidelines for deep well injection. |
| June 4, 1976 | Environmental assessment for deep well injection and updated grant application submitted. |
| August 17, 1976 | Construction permit application sent to state. |
| July 5, 1978 | Grant offer received following extended conversation and negotiation on deep wells. Special conditions providing for use of minority owned firms included. |
| July 8, 1978 | Meeting held with grantee, consultant and E.P.A. on special conditions of grant. It was pointed out that most of the A/E work was already completed and minority firm participation guidelines were not yet available but they would be followed when available. |
| Jan. 4, 1979 | Grantee authorized to proceed with bids. |
| Feb. 9, 1979 | Bids on treatment facility expansion of project advertised with bid opening set for April 11, 1979. |
| March 26, 1979 | Letter dated Feb. 1, 1979 received from E.P.A. which required newly completed minority firm guidelines (adopted effective Feb. 1, 1979) be included in bid. Bid opening postponed to April 25, 1979. |
| May 22, 1979 | Bid awarded. |

OPERATION: PUMPS

Program to Untangle Municipal Projects under EPA Wastewater Treatment Grants

REDUCE THE IMPACT OF EPA PROCUREMENT AND FEDERAL PROCUREMENT REGULATIONS ON CONTRACTS FOR A-E SERVICES

Issue

Consulting engineers performing contracts for grantees under the EPA Construction Grants Program experience delays in pre-contract reviews, disallowance of costs, reductions of indirect costs, delayed payments for work already performed, delays in final approval of contract products and excessive delays in payments for retained fees. These factors and many others make performance of EPA work a burden on everyone associated with the program. One consequence of delayed payments is that Consulting Engineers often must borrow operating capital. The non-allowability of interest on borrowed funds, a cost the engineer frequently must assume in order to compensate staff working on EPA projects, can be a significant economic burden in providing services on Construction Grants Program projects.

Legal References

The Clean Water Act, under Section 501a, specifies that the Administrator has the power to issue regulations necessary to carry out his functions under the Act. The procurement of A-E services is "regulated" in Section 35.936; Section 35.937, Subagreement for Architecture-Engineering Services; and Section 35.940, Determination of Allowable and Unallowable costs. General regulations regarding the procurement of A-E services are also incorporated by reference from the federal procurement regulations, 41 CFR 1-15.4 and 1-15.7 (Grants and Contracts with state and local governments). Section 1-15.104 of the FPR also relates to the contracts for the procurement of architecture and engineering services and spells out cost principles and procedures under the federal procurement regulations.

Discussion

Despite the requirements of Attachment O of OMB Circular A-102, that local and state procurement procedures be utilized by local governments receiving federal assistance, EPA has specified provisions for A-E procurement and cost and price review of A-E contracts. Further, the agency has directed that grantees apply the allowable-non-allowable provisions of the Federal Procurement Regulations (FR 1-15.4 through 15.7) on all subagreements. It is important to

note that the Federal Procurement Regulations were written for the guidance of large, sophisticated federal agencies in procuring and paying for goods and services. They were never intended to be observed and implemented by mayors of small communities, many of whom cannot understand, much less enforce them.

Section 35.936-8 states that:

> "Neither EPA, nor the United States shall be a party to any subagreement, nor to any solicitation or request for proposals. . . However, in accordance with Section 35.970, the regional administrator, if the grantee requests, may provide technical and legal assistance in the administration and enforcement of any contract related to treatment works for which an EPA grant was made."

EPA's lip service to privity of contract is mentioned in several places in EPA regulations. However, while claiming not to be a party in the contract, EPA requires that grantees submit contracts for A-E services to EPA for review prior to award for determination of allowable costs and other purposes. This interposition of EPA between the Consulting Engineer and his client local government can and does cause real problems of distrust. Trust and reputation for competence are the two most valuable assets possessed by an engineer. Yet EPA, in its reviews of contracts, contract amendments and products, devalues these assets on a regular basis.

The primary method of EPA interposition into the contract is through the cost and price considerations, Section 35.937-6. For all contracts in excess of $10,000, the grantee is required to undertake a cost review, consistent with EPA procedures and the cost principles expressed in the federal procurement regulations. For all subagreements for engineering services over $100,000, not only must the grantee review the cost submission, but the contract must be submitted to EPA for review of the cost and pricing data, certification, review and acceptance of the engineers' cost and price and a copy of the actual, proposed contract. The regulation specifically notes that:

> "The EPA Project Officer will review the complete subagreement action and approve the grantees' compliance with appropriate procedures before the grantee awards the subagreement. The grantee shall be notified upon the completion of review."

It is during this cost review that allowability of cost will be thoroughly examined.

EPA's list of allowable and unallowable costs are to be found in 40 CFR SEction 35.940. Included among the unallowable costs are: Interest on Bonds or any other form of indebtedness required to finance the project costs." This item is of particular concern to Consulting Engineers. As the administration of the EPA Construction Grants Program has become more and more indecisive,

reimbursement for work performed takes longer and longer. It is not uncommon for engineers to have accounts receivable for engineering services on EPA grants for months, and even years.

Like any other businessman, engineers must meet payrolls, pay rent and cover other costs of doing business. Payment of interest on operating capital loans has become a particular aggravating unallowable cost to Consulting Engineers under these circumstances. The federal procurement regulations on grants and contracts with state and local governments (41 CFR 1-15.7-7) states that:

> "Interest on borrowings (however represented), bond discounts, cost of financing and refinancing operations, and legal and professional fees paid in connection therewith, are unallowable, except when authorized by federal legislation."

If EPA administration of the Construction Grants Program requires engineers to borrow operating capital because of withheld payments, federal legislation, as specified in the above-mentioned section of the CFR, ought to be passed by Congress to relieve the situation.

Recommendations

Congress should require EPA, either by revision of the Office of Federal Procurement Act, (Public Law 93-400) and the FPR, or by other legislative means, should direct that EPA modify its reliance on federal procurement regulations for procurements and payments related to the procuring of A-E services by grantees under the Construction Grants Program. With particular reference to the question of interest on borrowed operating capital, Congress should direct EPA to amend its regulations to allow as an eligible cost the interest on money borrowed to meet payroll. This is particularly true in cases where payments for services rendered are not received within 30 days after a request for payment is properly submitted to an EPA grantee, consistent with 41 CFR 1-15.713-7. Congress should also request that the General Accounting Office review the administration of the Construction Grants Program related to the procurement of goods and services to determine if grantees and their contractors should properly have all of the federal procurement regulations related to allowable - non-allowable costs applied to them in the purchase and provision of goods and services. The GAO should also examine the cost and price regulations of EPA and those incorporated by reference from FPR, to determine if they are properly administered and give engineers and others a fair and reasonable return and an incentive to continue to perform EPA work.

EPA REGION IV PROFIT RESTRICTIONS

EPA in Region IV, as they have in other areas of the country, disallows portions of overhead which consulting firms generate as a normal course of business. Interest on money is a prime example of this.

However, an added problem in Region IV is that they have pegged the acceptable profit rate at a lower rate than most other regions in the country. Region IV is presently advising municipalities and counties that they will permit 10-12% profit levels. This is in comparison to Region I where 15-17% is acceptable.

Since most firms lose between 5-6% of their overhead through it not being allowed, the further complications of only 10-12% profit results in a mark up that is not profitable.

This was a factor in a recent ongoing negotiation for a major construction management project in Region IV. A 10-12% profit level was passed on to the client as a guideline and the resulting contract will be marginal from a profit point of view.

**OPERATION: PUMPS**

**Program to Untangle Municipal Projects** under EPA Wastewater Treatment Grants

REDUCING THE DELAY IN THE START-UP AND COMPLETION
OF CONSTRUCTION GRANTS PROJECTS
BY PERMITTING COMBINATION GRANTS IN STEPS 1 and 2

Issue

By structuring the Construction Grants Program in separate steps which require specific approval of the preceding step as well as the grant to fund the succeeding step, EPA has unnecessarily delayed the progress and completion of wastewater treatment facilities. Much of this delay could be eliminated if combination grants could be awarded under the EPA regulations.

Legal References

Included in the 1978 amendments to Grants for Construction of Treatment Works regulations (40 C.F.R. 35.900 et seq.) is a new provision, Section 35.909, which permits combination Step 2 and 3 grants (but not necessarily combination contracts). Under this provision, the Regional Administrator is empowered to award grants for design, as well as construction funds, in order to accelerate the completion of facilities for which this regulation was developed. These combination Step 2 and Step 3 grants are limited to communities which have a population of 25,000 or less and where total construction costs are estimated to be $2 million or less ($3 million in designated high-construction-costs states). The new provision also requires that the funds for the combined Step 2 and Step 3 work be included in the current state priority list.

Keeping this combined Step 2 and Step 3 provision in mind, the examination of the requirements for a separate Step 2 grant are instructive. First, it must be noted that Section 35.917, Facilities Planning -- Step 1 (1978 amendments), requires "full compliance with the facilities planning provisions of this sub-part before award of Step 2 or Step 3 grant assistance." However, in the paragraph immediately following this provision, the following language is also included:

> Grant assistance for Step 2 or Step 3 may be awarded before approval of a facilities plan for the entire geographic area to be served by the complete waste treatment system of which the proposed treatment works will be an integral part if:
>
> 1. The design to be developed will be cost-effective and achieve the applicable effluent limitations,

the NPDES standards, of the best practicable waste treatment technology (BPWTT). The design must also include the sewer system evaluation and rehabilitation requirements and meet the value engineering requirements;

2. The provisions for an environmental assessment and an environmental impact statement, if required, have been met.

Applications for Step 2 grants, before the completion of the facilities plan, also must assure that the Step 2 (i.e. design) assistance will not be significantly affected by the facilities plan and that the facilities plan will be completed within an agreed-upon schedule and be consistent with any existing water quality management or Section 208 plan. What is required to be included in a facilities plan?

1. Description of the treatment works for which construction drawings and specifications are to be prepared in Step 2. This description must include engineering data, cost estimates for the design and construction and a schedule for the completion of design and construction.

2. Description of the selected waste treatment system, including service area and collection sewers, discharge of treated wastewaters and management and disposal of solid residuals or sludge.

3. An infliltration-inflow analysis.

4. Cost-effectiveness analysis on alternatives for treatment works, including innovative and alternative treatment processes and techniques that reclaim and re-use water, primary energy requirements for alternatives considered and evaluation of pollution-removing effectiveness of alternative treatment systems.

5. Evaluation of how identified systems will meed NPDES permit requirements.

6. A summary of public participation.

7. Description of the authority of the grantee to have the necessary legal, financial institution and managerial resources to insure construction, operation and maintenance of the proposed treatment plant.

8. Potential opportunities for recreation, open space and access to bodies of water.

9. A description of a municipal pre-treatment program for industries discharging into the waste treatment system.

10. A user charge schedule, including either an ordinance or the basis of an ordinance if user charges will be based on ad valorum taxes.

11. Other miscellaneous requirements, including civil rights compliance, A-95 review comments, etc.

The facilities plan is certainly a complete and thorough document which the grantee and its consulting engineer must prepare in great detail, consistent with the voluminous EPA guidelines and regulations. It essentially becomes the overall blueprint for decision making by the grantee, the state and EPA for construction of treatment facilities, as well as a collection system, operation and maintenance system, financial and resources management system.

The plan obviously has significant impact on future land use decisions for a locality and tax structure as it relates to the attraction of industrial, residential and commercial development. Despite what EPA may believe, local communities do not adopt facilities plans lightly. The meeting of water quality standards in a locality through the construction of a treatment works system has profound implications on the future growth of that locality.

This is especially true of smaller communities. Many towns and counties have never planned an overall waste treatment system. In most communities, wastewater treatment was an individual responsibility of the local resident or commercial establishment, satisifed through private systems such as septic fields or local lagoons.

Another significant factor in the facilities planning process is the increased competence of state agencies to assist localities, especially small ones, to comply with all the many requirements of the EPA regulations. This is especially true in light of the 1977 amendments to the Clean Water Act, which specify that EPA should make available grants to states to administer the Construction Grants Program. The so-called delegation agreements have been completed, as of April, 1979, with some 15 states.

As more states undertake delegation agreements and work more closely to administer the Construction Grants Program with the localities, the flexibility of the Construction Grants Program to accelerate completions should likewise expand. Since EPA, in the 1978 regulations, has made provisions for awarding of grant funds for Step 2 and 3 prior to the completion of Step 1, and since construction grants can also be awarded for Steps 2 and 3 to small communities meeting certain standards, this flexibility should be expanded to permit grants for Steps 1 and 2 to be awarded as part of a single agreement. This does not mean that the requirements for a Step 1 completion should be reduced, waived or eliminated. Nor does it mean that the grantee should be permitted to make awards of contracts for [illegible] until such time as the facility plan

is completed and approved. The award of combination Step 1 and 2 grants, however, especially in small communities, will encourage a continuity in the construction grants process which currently does not exist. This is particulary true where new regulations or new interpretations of regulations require that amendments to Step 1 be completed, submitted, and approved before additional work can be performed and the cost of such work reimbursed. A combination Step 1/Step 2 grant award would avoid such delay and would require the states and EPA to work more closely with many local jurisdictions to assure that the work continues to progress.

The Environmental Protection Agency must recognize that the nature of local government in many small towns is not a permanent institutional arrangement as in large federal bureaucracies, or even state agencies. Continuity in local government is directly related to the tenure of elected officials. Many towns have only part-time managers or staff, if any at all. The commitment to raise the necessary matching funds for a federally-assisted treatment facility is often based on expectations of revenue from user costs, rather than general tax increases. In fact, many localities are prohibited from issuing general obligation bonds by state law. Delays in the completion of planning and specifications for construction threaten the stability of this fiscal structure because it delays revenue to retire such bonds. Many states limit contractual and debt powers of small communities by requiring review and reapproval of contractual and fiscal obligations after local elections. Bond issues also must be utilized or a new referendum is often required to assure that bonds are used for the purpose which the voters originally intended them.

All of these factors call for flexibility in the Construction Grants Program to accommodate the problems of local governments, especially small communities. Permitting combination Step 1 and 2 grants would alleviate much of the delay, frustration and additional costs which localities incur because of the rigidity and complexity of the EPA guidelines.

Recommendation

Congress should amend the Clean Water Act in Title II or make it a condition of the FY '80 appropriation that EPA amend the construction grants regulations in Part 35, Local Assistance, to include a provision for combination grants for Steps 1 and 2. Included in such provisions can be safeguards to assure that elements of design and construction specifications are not commenced until the facilities planning process is complete and approved by the states and EPA. Such provision, however, should include the requirement that once the Step 1 facility plan is complete, costs incurred by the grantee in the selection of a design contractor, as well as costs incurred by the design engineer, are reimbursable and eligible and not subject to EPA re-interpretation.

OPERATION: PUMPS
Program to Untangle Municipal Projects under EPA Wastewater Treatment Grants

RELAXATION OF THE EPA PROCUREMENT REGULATIONS
FOR SMALL COMMUNITIES
(Population of 25,000 or less)

Issue

EPA's Construction Grant Regulations are equally applicable to all grantees, no matter what their size. Almost 80 percent of the grantees currently receiving assistance are communities of less then 25,000 in population. Almost half of these grants were made to communities with populations of under 3,500. Most small communities do not have professional staff and do not understand why they must comply with the same EPA regulations that apply to large, complex projects in major cities. Most important, even though grants to small communities constitute nearly 80 percent of all grants, they represent only 30 percent of the total dollars involved in the EPA Construction Grants Program.

Legal References

The Clean Water Act Amendments of 1977 recognize the large number of small communities which would be applying for and receiving assistance under the Construction Grants Program. This was recognized in two amendments to Title II, in Sections 203 and 205.

Section 203a delineates that combination Step 2 and Step 3 grants (Design Specifications and Construction) may be awarded to communities of less than 25,000 where the total cost of the project is less than $2 million ($3 million in high construction costs states). The Senate report on P.L. 95-217 , the 1977 amendments to the Clean Water Act, noted the utility of recognizing special procedures for smaller communities.

> The amendment is intended to simplify grant processing and paperwork for smaller projects and communities. This procedure will allow limited relief from the current requirement that all grantees apply for funds in a three-step process . . . . The amendment will have the effect of cutting down on the number of applications and grants and reducing the completion time and paperwork involved in a given project. EPA estimates that approximately 50

> percent of municipal wastewater treatment construction grant projects will benefit from this amendment.

Section 205 also recognizes the problems of small communities in the set-aside for alternative systems. It requires that between five and ten percent of construction grant funds allotted to a rural state (rural population of 25 percent or more) be used for alternative or unconventional systems for communities of 2,500 or less. Thirty-four such states have been identified by the Bureau of the Census.

Except for the regulations implementing the small communities' combination grants and rural individual systems' set-asides, the revised Construction Grant Regulations (issued September 27, 1978) (40 C.F.R. 35.909,.918,.935-4,.920-3), give little consideration to "reduce the paperwork for small communities". Only one other specific reference to communities under 25,000 can be found in these new regulations, the Public Notice Requirements in the selection of professional engineering services (Section 35.927-2). The exemption from public notice is an excellent example of the type of waiver from regulation which the Agency should observe on smaller projects. In this case the savings in time is small but significant. Similar exemptions could be extremely productive. If such regulations cannot be waived, then a certification procedure, similar to the one used by EDA for the LPW program (13 C.F.R. 317.35), should be substituted for the regulations.

Discussion

Although the overwhelming majority of construction grants and less than a third of the funding are awarded to communities under 25,000, EPA has not seen fit to reduce paperwork and complexity for jurisdictions of this size.

EPA also ignores the requirements of Attachment O to OMB Circular A-102 (State and Local Grantee Procurement Standards). Circular A-102, which defines the general requirements of grant assistance to localities, was issued in order to "reduce administrative costs, paperwork and other such factors which contribute to inefficiency, waste and delay in implementing programs." Attachment O further states that:

> No additional requirements or subordinate regulations shall be imposed upon grantees by executive agencies, unless specifically required by federal law or executive orders or authorized by the Administrator of Federal Procurement Policy.

There is nothing in the Clean Water Act or other federal statute that requires EPA to issue grant regulations as complex and severe as those in Part 35, issued September 27, 1978. Attachment O goes

on to say:

> Executive agencies shall not substitute their judgment for that of the grantee unless the matter is of primary federal concern.

and also,

> Grantees shall use their own procurement procedures which reflect applicable state and local laws and regulations, provided that procurement made with federal grant funds conform to the standards set forth in Attachment O.

In particular, EPA has made the standards and regulations, which they require their grantees to enforce, most rigorous on subagreements over $10,000 and even more so for subagreements over $100,000. The Agency appears to ignore the fact that application of the Code of the Federal Procurement Regulations was intended to apply only to federal purchasing. It was written for direct federal procurement and not for grantees.

The Contract Cost Principles and Procedures are supposed to limit the FPR for federal assistance to Part 1-15.7, Grants and Contracts for States and Local Governments. EPA has, nonetheless, established separate regulations and incorporated the FPR by reference to its regulations. This is particularly true in the case of procurement contracts for the selection of architectural and engineering services, especially those exceeding $100,000 (Section 35-937-6).

Significant reduction in paperwork and complexity for small communities could be achieved if EPA established a separate project review, cost and price evaluation and approval process for small communities under 25,000. For such grantees, EPA should eliminate the cost threshold of $10,000 and $100,000. Such grantees should have a separate set of regulations utilizing Attachment O of OMB Circular A-102. EPA should also eliminate all references to the Federal Procurement Regulations for such projects and utilize the cost principles stated for local assistance under federal grants in Circular A-102.

Recommendations

Congress should amend the Clean Water Act to extend the consideration given to small communities under 25,000 population, as currently stated in Section 203, to include all project steps.

Congress should also require that the EPA Administrator issue separate regulations embodying cost principles based on Attachment O to OMB Circular A-102 for assistance in such communities. All current references in 40 C.F.R. Parts 30, 33 and 35, relating to the Construction Grants Program, should be amended to incorporate new regulations relating to communities under 25,000 population, without regard to cost limitation of subagreements.

CORAL GABLES, FLORIDA

SEWAGE LINE REPAIR PROJECT

The City of Coral Gables applied for EPA grants for $110,000 construction value, for repair to an existing sewer line. In order to get the 75% EPA share of this project the city had to submit the same paperwork as would be required for a $50 million project including some very elaborate advertisement requirements for bidding.

The amount of work involved to get this grant was well in excess of what would be reasonable to get a grant of this size. No relaxation of the regulations was available regardless of the size of the project.

**OPERATION: PUMPS**

**Program to Untangle Municipal Projects** under EPA Wastewater Treatment Grants

IMPROVING THE EPA CONSTRUCTION GRANTS PROGRAM
THROUGH ESTABLISHMENT OF FIXED TIME PERIOD
IN WHICH EPA MUST EITHER APPROVE OR REJECT PROJECTS
IN THE CONSTRUCTION GRANTS PROGRAM

## Issue

Applications for local assistance in each step of the Construction Grants Program, as well as the products of each step (facilities plans, designs and specifications, construction bids, etc.) require too much time for approval by EPA. Local municipalities often wait months, even years, for approval to proceed with projects funded in substantial part by Construction Grants Program assistance, especially in Steps 2 and 3, the design and construction phases of the program.

## Legal References

The Clean Water Act (P.L. 92-500 and P.L 95-217, 33 U.S.C. 466 et. seq.) makes no reference to separate "step" grants in the approval of local assistance by EPA for completion of wastewater treatment facilities. General references are made to facility plans, construction specifications and estimates for construction. But the procedures by which the grants are approved in separate Steps 1, 2, and 3, is a creature of regulation by EPA. The Act does specify in Sections 201, 203 and 204 that certain elements must be included in facilities plans before grants for "treatment works" may be approved. These include, among others, innovative and alternative technology, recreation and open space utilization, energy requirements, cost-effectiveness, industrial cost recovery, user charge schedules, etc.

The specific process by which grants are awarded to municipalities, generally referred to as "grantees" by EPA in the regulations, are included in Parts 30, 33 and 35 of Title 40 of the Code of Federal Regulations (CFR).

To say that these regulations are voluminous is to understate the level of detail which EPA has included. The regulations occupy over 200 pages in the 1977 CFR. This does not include the 1978 revisions to Part 35, State and Local Assistance, which adds an additional 50 pages in "Federal Register" format.

american consulting engineers council

EPA's general policy on grant review is specified in Section 345 of Part 30, the General Grant Regulations and Procedures for EPA. Section 30.345 states:

> Generally, within 90 days after the receipt of a completed application (excluding suspension periods for submission of supplemental information), the EPA grant approving official will take one of the following actions: (a) Approve for grant award; (b) Defer due to lack of funding; or (c) Disapprove the application. The applicant shall be promptly notified in writing of any deferral or disapproval. A deferral or disapproval of an application shall not preclude its reconsideration or reapplication. The applicant shall not be notified by EPA of an approval or grant award prior to transmittal of the grant agreement for execution by the applicant.

It is important to note that prompt action by EPA is required only for deferral, for lack of funding, or for disapproval. Approval will not necessarily be made within this period until the preparation of a final grant agreement, which is the legally binding obligation for assistance offered to the applicant. Under the Construction Grants Program, applications for Step 1, Facilities Planning, Step 2, Design and Specifications, or Step 3, Construction and Construction Management, are part of a detailed priority process through the state. Deferral or disapproval is highly unlikely if the application has been approved by the state. The critical phrase then, within the section, is "excluding suspension periods for submission of supplemental information."

Discussion

"Suspension periods" extending the 90-day requirement in Section 30.345 have become the rule rather than the exception with EPA grants. This is due to several factors which have characterized the Construction Grants Program, almost since its inception. These factors are:

1. The issuance of new regulations or PRMs during the pendency of a submitted grant application.

2. Changes in policy within EPA over allowable or eligible costs and audit procedures.

3. Confusion resulting from changes in regulations and audit and cost procedures among grantees, the states and EPA regions.

4. Concern by EPA over the proposed system--not enough justification, or explanation, or equipment, or public participation, or any detail related to the project.

63-935 O—80——79

The completion of the 1977 amendments to the Clean Water Act and the amended regulations which were issued September 27, 1978, have produced hundreds of situations where completed or near-completed facilities plans have been returned to the grantees or the states, based on new requirements by EPA. It is this uncertainty and the resulting inability to make decisions which has largely caused extraordinary delays in the grant approval process, particularly between Steps 1 and 2. Attached are several examples that highlight this problem.

This is not to say that the changes in regulations and uncertainty of decision making in the Construction Grants Program has not produced similar impacts between Steps 2 and 3. Considerable amendments to facilities plans, and even plant redesign, have been mandated by EPA officials to comply with new regulations, issued after the design was completed.

The impact of grant approval delays on the municipalities, their engineers and contractors is not merely administrative. Section 35.925-18 specifically prohibits any costs incurred prior to the award of a grant agreement or amendment from being reimbursable. Many grantees and their engineers have performed tasks in an attempt to comply with new regulations, PRMs or other EPA guidance materials issued after the commencement of a facility planning grant or after design. Often EPA has refused to reimburse the grantee or engineer for such effort because, even though required, it is unallowable or ineligible.

Recommendations

Congress should direct EPA, or the states certified by EPA, by amendment to the Clean Water Act or as a condition to the FY '80 appropriation, to amend 40 CFR 30.345 and all other regulations referring to grant awards to require that:

Applications which

(1) are submitted as part of a conforming priority list process approved by the state where the grantee is located; and

(2) include all required documentation, such as approved facility plan or construction design specifications, shall be either approved or rejected within 90 days of submission.

If the application is deficient in any specific documentation or other information, EPA or the states must inform the grantee within 45 days after submission and, upon the return of the requested documentation, EPA must approve within the remainder of the 90 days. In short, any requirement for additional documentation should not "reset the clock." If EPA does not respond and specify additional documentation, the application is presumed complete and is automatically approved at the expiration of any 90-day period in which the required data is in EPA's or the states' possession.

SARASOTA COUNTY, FLORIDA
201 FACILITIES PLAN

The following is a chronology of the four years spent in just gaining final E.P.A. approval of the 201 Facilities Plan for Sarasota County, Florida.

| | |
|---|---|
| 9/24/74 | 201 Facilities Plan Application authorized by Sarasota County. |
| 10/30/74 | State Clearinghouse approval. |
| 11/6/74 | Application filed with State. |
| 11/20/74 | State approval; forwarded to E.P.A. |
| 9/16/75 | Grant offer received from E.P.A. |
| 9/28/75 | Grant offer accepted by County. |
| 3/17/76 | Discrepancy between OBERS and University of Florida population statistics raised by E.P.A. |
| 6/3/79 | Discrepancy question settled. |
| 11/76 | Draft of basic plan approved by E.P.A. |
| 12/76 | Plan finished except for public hearing. |
| 3/77 | Public hearing completed. |
| 4/77 | E.P.A. requires more specific data from Sarasota County. |
| 7/77 | E.P.A. requires more additional data from City of Sarasota. |
| 8/77 | Final submission to E.P.A. |
| 9/77 | City of Sarasota portion of plan approved by E.P.A. |
| 11/77 | E.P.A. requires more data from City of Venice. |
| 2/78 | City of Venice portion of plan approved by E.P.A. |
| 3/78 | E.P.A. requires additional data. |
| 9/78 | E.P.A. final approval of plan. |

In the drafting of this 201 Plan, chapters were sent to E.P.A. as they were completed, in order to get that agency's comments and reactions as early as possible and to avoid or resolve any conflicts which might delay completion of the plan. E.P.A.'s comments and suggested changes which were received throughout this drafting process were taken into consideration and incorporated into the plan. However, when the complete draft was submitted for final approval, applicants were faced with continuous requests for additional data by E.P.A., drawing out the approval process over a four year period.

The E.P.A. project manager handling this project changed numerous times throughout the four years spent in gaining final approval of the plan. This parade of personnel, each with his own ideas and interpretations of policies and requirements, contributed significantly to the continual demands for "more" and "additional" data and the cumulative lengthy delays in completing this plan.

COLLIER COUNTY, FLORIDA
201 FACILITIES PLAN

6 months - Length of time, after receipt of application, that it took E.P.A. to review and approve the application.

15 months - Length of time for preparation and completion of plan by consultants.

18 months - Length of time required by E.P.A. to review and act upon plan.

In drafting this 201 Plan, chapters were sent to E.P.A. for review and comment as they were completed. E.P.A. comments on the chapters were incorporated in the plan as it was developed. When the final draft was compiled and submitted in total, however, applicants were faced with numerous additional questions, objections and requests for additional information on the same data that had previously been reviewed on a chapter by chapter basis.

In one instance, the City of Naples, a participant in the 201 Plan, refused to accept a proposal by Collier County, the lead applicant, even though it was the most cost-effective alternative available. E.P.A. insisted that the question be settled locally but would not exert effort or leadership to help move the project or achieve the most cost-effective alternative. After a delay of several months and numerous meetings on the question, E.P.A. did finally accept the responsibility of requiring that the most cost-effective alternative be selected.

This lack of responsiveness and responsibility result in lengthy delays which steadily erode the value of the federal grant assistance and drive project costs through the roof.

BOCA RATON, FLORIDA
201 FACILITIES PLAN

| | |
|---|---|
| March 1977 | Grant application submitted. |
| | Grant application revised at E.P.A.'s insistance to provide for a detailed environmental impact statement (EIS). |
| June 1978 | Grant offer received. |

Original 12 month estimate of project duration now increased to 21 months due to delays resulting from E.P.A. interpretations. It took 6 months to get the EIS consultant selected and approved by E.P.A.

BROWARD COUNTY, FLORIDA
LAUDERDALE LAKES PUMPING STATION

This project is one of 14 similar construction projects currently underway in the northern district of Broward County.

The construction bid was advertised 8-15-78 and tentative award was made 9-12-78, pending E.P.A. approval. On two occasions the contractor had to be requested to hold his bid for extended time periods awaiting E.P.A. approval of the bid. E.P.A. approval was finally received 11-20-78, however, E.P.A.'s Equal Employment Opportunity approval was not received until 12-15-79. As a result the contract could not be signed until 12-27-78 with notice to proceed issued on 1-2-79.

BROWARD COUNTY, FLORIDA
SEWER SYSTEM EVALUATION SURVEY

This project took one year from the time the first technical proposal was initiated until time consultants were authorized to proceed.

Three proposals were required to be submitted (6-26-78, 9-12-78, 9-26-78) and it took five months (9-26-78 to 2-14-79) to receive the grant offer.

Due to these continuing delays, inflation and new regulations the project had to be modified an additional time, 3-14-79 to conform to grant offer.

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

STATE OF FLORIDA

# DEPARTMENT OF ENVIRONMENTAL REGULATION

## FISCAL YEAR 1980 PROJECT PRIORITY LIST

## FOR WASTEWATER TREATMENT WORKS

## EFFECTIVE OCTOBER 1, 1979

The Clean Water Act of 1977 requires each state to establish a project priority list for the disbursement of wastewater facilities construction grants allocated to that state. Funds for this program are allotted to the State of Florida by Congress based on the state's existing and expected construction needs. Florida's project priority system provides a method of equitably distributing funds to local governmental agencies which have planned wastewater pollution control programs.

The project priority list includes fundable and planning portions. The fundable portion (white pages) consists of projects which meet the priority system requirements for being on the list and are projected to receive grant assistance in FY '80. The planning portion (yellow pages) consists of those projects scheduled to receive grants in FY '81 - '86. If a project on the planning portion of the list becomes eligible for funding in FY '80, and if grant dollars are available, a hearing will be held to consider moving the project to the fundable portion of the list. It is projected that approximately $100 million in projects may fall into this category.

The U. S. Environmental Protection Agency (EPA) has advised Florida to assume that it will receive $145,790,800 in grant funds in FY '80. These funds will be added to those remaining from the FY '79 and Public Works appropriations.

In accordance with federal regulations, reserves have been set aside for Step 1 and 2 projects not on the fundable portion of the priority list, unanticipated grant increases, a state management assistance grant, and innovative/alternative technology project grant increases.

Although the priority system permits funds to be set aside for small communities, adequate funds are available in FY '80 to meet the requirements of all projects on the fundable priority list. Therefore, the priority list does not set aside funds to serve small communities.

Projects which have been certified to EPA by the Department prior to June 20, 1979, but have not received grant offers by this date, have been placed at the top of the list and have been identified as certified (buff pages). These projects have the highest priority. Any additional projects certified but not awarded grants prior to the effective date of this list shall be included in this group of highest priority projects.

Projects on the priority list are reviewed for consistency with areawide water quality management plans.

As of June 20, 1979, after reserve funds have been set aside, there remains $173,186,845 from FY '79, FY '80, and Public Works dollars for funding the ranked projects on the priority list. This information is summarized below. Utilizing EPA funding assumptions, all projects on the priority list and scheduled for grants in FY '80 can be funded. FY '79 reserves for Step 1 and Step 2 Projects and for Grant Increases will be maintained until the FY '80 allotment is received. At that time, these two reserves will be placed with the non-reserved funds.

SUMMARY OF AVAILABLE FUNDS

| | | |
|---|---|---|
| Public Works Funds ($14,256,000) . . . . . | | $14,256,000 |
| FY '79 Allocation ($158,904,600) | | |
| Reserve for state management assistance . . | $ 3,178,092 | |
| Reserve for innovative/alternative projects | 799,912 | |
| Certified and/or awarded for projects | 92,218,679 | |
| Balance (excluding reserves) available for project grants as of June 20, 1979 . . . . . | | $62,707,917 |
| FY '80 Allocation $145,790,800) | | |
| Reserve for state management assistance | $ 2,915,816 | |
| Reserve for grant increases | 29,158,160 | |
| Reserve for Step 1 & 2 projects | 14,579,080 | |
| Reserve for innovative/alternative projects | 2,276,844 | |
| Certified for innovative/alternative projects | 637,972 | |
| Grants awarded | -0- | |
| FY '80 Funds (excluding reserves) available for project grants as of October 1, 1979 . . . . . | | $96,222,928 |
| Total funds (excluding reserves) available for grant projects . . . . . | | $173,186,845 |
| Total funds requested on the Priority List . . . | | $119,294,000 |

## GLOSSARY

| | | | |
|---|---|---|---|
| AWT | - advanced waste treatment | Irr | - irrigation |
| Coll | - collector, collection | LS | - lift station |
| DWI | - deep well injection | MGD | - million gallons per day |
| Eff disp | - effluent disposal | PS | - pump station |
| EIS | - environmental impact statement | Reg | - regional |
| Exp | - expand | SSES | - sewer system evaluation survey |
| FM | - force main | SS rehab | - sewer system rehabilitation |
| GI | - grant increase | Sldg | - sludge |
| ICR | - industrial cost recovery | STP | - sewage treatment plant |
| I/I | - infiltration/inflow analysis | Sys | - system |
| Int | - interceptor | UC | - user charge |
| | | U/G | - upgrade |

3/2R - projects requesting Step 3 grants and a rule exception to reimburse Step 2 (plans & specifications) work already complete. If EPA does not grant a rule exception, funds will be diverted to other projects and the Step 2 request will be dropped from the list.

Enforceable requirement code (listed in NPDES column):

a -- Project satisfies the conditions or limitations of a 402 or 404 permit which, if violated, could result in the issuance of a compliance order or initiation of a civil or criminal action under Section 309 of the Clean Water Act.

b -- Permit has not been issued but project satisfies a condition or limitation which would be included in the permit when issued.

c -- Permit is not applicable but project satisfies a requirement anticipated to be necessary to meet applicable criteria for best practicable waste treatment technology.

d -- Project does not meet an enforceable requirement of the Act.

y -- The project in its entirety satisfies the enforceable requirements of the Act for the condition stated in the preceding character position.

p -- Portions of the project do not satisfy the enforceable requirements of the condition stated in the preceding character position.

Needs Categories (referenced in last column of list):

I - Secondary treatment
II - More stringent treatment
IIIA - Infiltration/inflow
IIIB - Sewer system replacement or major rehabilitation
IVA - New collectors and appurtenances
IVB - New interceptors and appurtenances

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 & 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Pinellas Park<br>City Hall<br>Pinellas Park 33134 Pinellas | | NA | 276010 | 3 | 12/75 | GI for Cost Increase | 662 | | |
| Cert. | City of Key West<br>P. O. Box 1550<br>Key West 33040 Monroe | | NA | 465010 | 1 | 6/75 | GI - SSES | 496<br>20 | | |
| Cert. | City of Hollywood<br>P. O. Box 2207<br>Hollywood 33022 Broward | | NA | 594020 | 3 | 2/76 | Ocean outfall extension | 15<br>1,477 | | |
| Cert. | City of Carrabelle<br>P. O. Drawer 569<br>Carrabelle 32322 Franklin | | 549010 | 549040 | 2 | 11/76 | 2 mgd STP spray irr PS rehab | 1,108<br>50 | | |
| Cert. | City of Panama City<br>City Hall<br>Panama City 32401 Bay | | 450010 | 659020 | 2 | 1/77<br>Re 2/78 | Millville PS, FM, SSES, STP U/G, rate study | 38<br>300 | | |
| Cert. | City of Mexico Beach<br>P. O. Box 13425<br>Mexico Beach 32410 Bay | | 545010 | 545020 | 2 | 2/77 | St. Joe Beach int<br>Beacon Hill int | 225<br>185 | | |
| Cert. | City of Mexico Beach<br>P. O. Box 13425<br>Mexico Beach 32410 Bay | | 545020 | 545030 | 2 | 2/77 | STP, spray irr | 139<br>52 | | |
| Cert. | City of Macclenny<br>118 E. Macclenny Ave.<br>Macclenny 32063 Baker | | NA | 618010 | 1 | 2/77<br>Re 6/78 | 201 Fac Plan, I/I | 39<br>21 | | |
| Cert. | City of Marianna<br>P. O. Box 936<br>Marianna 32446 Jackson | | 451010 | 451020 | 2 | 3/77<br>Re 6/78 | STP U/G, SSES | 16<br>101<br>76 | | |

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES Number / Needs Survey | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Pipe Related Elgbl. Costs (Cat. IIIb, IVb, IVb & V) $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of New Smyrna Beach<br>210 Sams Ave.<br>New Smyrna Beach 32069 Volusia | | 426010 | 426020 | 3 | 5/77 | Exp exist STF | 4,400 | | |
| Cert. | City of Chipley<br>P. O. Drawer Q<br>Chipley 32428 Washington | | 576010 | 576050 | 2 | 5/77 | Int. | 3,300<br>35 | | |
| Cert. | Broward County<br>236 S E 1st Ave.<br>Ft. Lauderdale 33301 Broward | | 574010 | 574190 | 2 | 5/77 | Plantation PM & PS | 26<br>732 | | |
| Cert. | City of Ft. Lauderdale<br>P. O. Drawer 14250<br>Ft. Lauderdale 33302 Broward | | 574010 | 474040 | 2 | 5/77 | PS & PM -- Fort Everglades to Hollywood | 549<br>600 | | |
| Cert. | City of Brooksville<br>26 S. Brooksville Ave.<br>Brooksville 33512 Hernando | | NA | 603010 | 1 | 5/77 | GI | 450<br>20 | | |
| Cert. | City of Sarasota<br>P. O. Box 1058<br>Sarasota 33578 Sarasota | | 587010 | 674010 | 2 | 7/77 | Reg STP & spray irr | 15<br>653 | | |
| Cert. | City of Sarasota<br>same | | 587010 | 674020 | 3 | 8/77 | Land application site purchase | 490<br>3,453 | | |
| Cert. | City of Lake City<br>P. O. Box 202<br>Lake City 32055 Columbia | | 462010 | 462020 | 3 | 8/77<br>Rev 4/78 | Eff disp line, PS, int, SRES | 2,590<br>569 | | |
| Cert. | City of Lake City<br>same | | 462010 | 462040 | 3 | 8/77<br>Rev 4/78 | Land application site purchase | 427<br>1,400 | | |
| | | | | | | | | 1,050 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
CERTIFIED PROJECTS

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EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | Bradenton/Manatee<br>P. O. Drawer 730<br>Bradenton 33506 Manatee | | NA | 540010 | 1 | 8/77 | GI - alternative process study | 37<br>28 | | |
| Cert. | Pinellas County<br>315 Haven St.<br>Clearwater 32055 Pinellas | | NA | 592010 | 1 | 8/77 | GI -- Oldsmar SSES | 72<br>54 | | |
| Cert. | Loxahatchee R.Env.Cont.Dist.<br>P. O. Box 396<br>Jupiter 33458 Palm Beach | | NA | 407010 | 3 | 10/77<br>Re 6/78 | GI start-up services | 35<br>26 | | |
| Cert. | City of Orlando<br>400 S. Orange Ave.<br>Orlando 38201 Orange | | NA | 399020 | 1 | 11/77 | GI -- Winter Park alternative selection | 7<br>5 | | |
| Cert. | City of New Smyrna Beach<br>P. O. Box 490<br>New Smyrna Beach Volusia 32069 | | 619010 | 426010 | 2 | 11/77 | GI -- exp exist STP | 48<br>36 | | |
| Cert. | City of Orlando<br>same | | NA | 399020 | 1 | 1/78 | GI -- Maitland increased costs | 21<br>16 | | |
| Cert. | Escambia County<br>P. O. Box 1591<br>Pensacola 32597 Escambia | | 610010 | 610030 | 2 | 4/78 | Land application sym for Cantonment | 116<br>87 | | |
| Cert. | City of Crestview<br>P. O. Box 1207<br>Crestview 32536 Okaloosa | | 432010 | 432030 | 2 | 5/78 | Int sym | 25<br>19 | | |
| Cert. | City of Greensboro<br>P. O. Box 66<br>Greensboro 32330 Gadsden | | 551010 | 551020 | 2 | 5/78 | STP disp sym | 19<br>14 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
CERTIFIED PROJECTS

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Greensboro<br>P. O. Box 66<br>Greensboro 32330 Gadsden | | 551010 | 551030 | 2 | 5/78 | Int sys | 25 | | |
| Cert. | City of Groveland<br>P. O. Box 26<br>Groveland 32736 Lake | | 385010 | 385020 | 2 | 6/78 | GI -- Additional spray irr fac | 19<br>20 | | |
| Cert. | City of Orlando<br>400 S. Orange Ave.<br>Orlando 34201 Orange | | NA | 399020 | 1 | 6/78 | GI-increased cost of Seminole Co. participation | 15<br>4 | | |
| Cert. | City of Crestview<br>P. O. Box 1207<br>Crestview 32536 Okaloosa | | 432010 | 432020 | 2 | 7/78 | U/G 1.5 mgd STP & SSES | 3<br>91 | | |
| Cert. | City of Tallahassee<br>City Hall<br>Tallahassee 32304 Leon | | 581010 | 581060 | 3 | 8/78 | Riggins Rd PS & generators | 68<br>1,163 | | |
| Cert. | City of Eastpoint<br>P. O. Box 728<br>Eastpoint 32328 Franklin | | NA | 315010 | 3 | 8/78 | GI - close out | 765<br>97 | | |
| Cert. | City of St. Petersburg<br>P. O. Box 2842<br>St. Petersburg 33731 Pinellas | | 631010 | 631040 | 2 | 9/78 | Bldg fac for 4 STP | 73<br>331 | | |
| Cert. | City of St. Petersburg<br>same | | 631010 | 522040 | 2 | 9/78 | Eff distribution fac for SW STP | 248<br>69 | | |
| Cert. | Lee County<br>P. O. Box 398<br>Ft. Myers 33902 Lee | | 392010 | 392020 | 2 | 9/78 | N. Dist. STP's, PS & FM | 52<br>697<br>523 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
CERTIFIED PROJECTS

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | Lee County<br>P. O. Box 398<br>Ft. Myers 33902 Lee | | 392010 | 392040 | 2 | 9/78 | N. Dist. int | 572<br>429 | | |
| Cert. | Bay County<br>105 Springhill Circle<br>Panama City 32401 Bay | | 450010 | 450080 | 3 | 10/78 | Primary STP -- Callaway Parker, Springfield, & Cedar Grove | 1,799<br>1,349 | | |
| Cert. | Bay County<br>same | | 450010 | 450050 | 3 | 10/78<br>Re 6/79 | Int, PS & FM-Callaway, Parker, Springfield, & Cedar Grove | 4,880<br>3,660 | | |
| Cert. | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | | NA | 591010 | 1 | 10/78 | GI -- change in scope | 40<br>30 | | |
| Cert. | City of Lynn Haven<br>825 Ohio Ave.<br>Lynn Haven 32444 Bay | | NA | 349010 | 3 | 10/78 | GI - modify land spreading sym | 219<br>164 | | |
| Cert. | City of Clewiston<br>P. O. Box 698<br>Clewiston 33440 Hendry | | 663010 | 663020 | 2 | 11/78 | Phase I (STP, spray irr sym, FM's & PS's) | 90<br>66 | | |
| Cert. | City of Macclenny<br>118 E. Macclenny Ave.<br>Macclenny 32063 Baker | | NA | 420010 | 3 | 11/78 | GI | 1[illegible]<br>11[illegible] | | |
| Cert. | Hillsborough County<br>120 N. Florida Ave.<br>Tampa 33602 Hillsborough | | NA | 354010 | 3 | 11/78 | GI - admin. bldg. | 493<br>370 | | |
| Cert. | City of Tallahassee<br>City Hall<br>Tallahassee 32304 Leon | | 581010 | 581140 | 2 | 11/78 | Lake Jackson LS & FM | 260<br>195 | | |

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Alterr. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Orlando<br>400 S. Orange Ave.<br>Orlando 38201 Orange | | NA | 399020 | 1 | 11/78 | GI — SSES | 148 | | |
| Cert. | City of West Palm Beach<br>P. O. Box 1431<br>West Palm Beach 33402 Palm B. | | NA | 330010 | 3 | 11/78 | GI — well logging | 111<br>43 | | |
| Cert. | City of Delray Beach<br>100 N.W. 1st Ave.<br>Delray Beach 33444 Palm Beach | | NA | 653010 | 1 | 12/78 | GI - update I/I | 32<br>7 | | |
| Cert. | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | | NA | 543010 | 3 | 12/78 | GI - Phase II STP exp | 5<br>1,095 | | |
| Cert. | City of Tallahassee<br>City Hall<br>Tallahassee 32301 Leon | | 581010 | 581080 | 3 | 1/79 | 10% GI — alternative process | 821 | | |
| Cert. | Pinellas County<br>315 Haven St.<br>Clearwater 33516 Pinellas | | NA | 288010 | 3 | 1/79 | GI - Excess costs & close out | 840<br>101 | 8,400 | |
| Cert. | City of Chipley<br>P. O. Drawer Q<br>Chipley 32428 Washington | | NA | 576010 | 1 | 1/79 | GI — exp SSES | 76<br>8 | | |
| Cert. | Pinellas County<br>[redacted] | | NA | 431010 | 3 | 1/79 | 10% GI — McKay Cr. alternative process | 6<br>190 | 1,900 | |

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of DeFuniak Springs<br>P. O. Box 287<br>DeFuniak Springs 32433 Walton | | NA | 425040 | 2 | 1/79 | GI -- supplemental I/I | 40<br>30 | | |
| Cert. | Brevard County<br>2575 N. Courtenay Parkway<br>Merritt Island 32952 | | NA | 579010 | 1 | 1/79 | GI -- SSES | 25<br>19 | | |
| Cert. | City of Winter Park<br>401 S. Park Ave.<br>Winter Park 32789 Orange | | 399020 | 651030 | 1 | 1/79 | Phase I SSES | 132<br>99 | | |
| Cert. | Town of Havana<br>P. O. Box 10648<br>Havana 32333 Gadsden | | NA | 572010 | 1 | 2/79 | GI -- SSES | 59<br>44 | | |
| Cert. | City of Leesburg<br>P. O. Box 630<br>Leesburg 32748 Lake | | 457020 | 457050 | 3 | 2/79 | GI -- cost increase + 10% ($460,000) for A/I | 1,375<br>1,031 | 4,600 | |
| Cert. | Miami-Dade W. & S. Auth.<br>P. O. Box 330316<br>Miami 33133 Dade | | 377010 | 377120 | 2 | 3/79 | S. Dist. PS 31-P1 | 52<br>39 | | |
| Cert. | Miami-Dade Water & S. Auth.<br>same | | 377010 | 429080 | 2 | 3/79 | Cent. Dist. int C-2 | 121<br>91 | | |
| Cert. | City of Palatka<br>P. O. Drawer 1100<br>Palatka 32077 Putnam | | NA | 736010 | 1 | 3/79 | 201 fac plan | 43<br>32 | | |
| Cert. | City of St. Petersburg Beach<br>7701 Boca Ciega Drive<br>St. Petersburg B. 33706<br>Pinellas | | 631010 | 696020 | 2 | 3/79 | LS & FM | 88<br>66 | | |



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STATE OF FLORIDA

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| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs By Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of St. Petersburg<br>P. O. Box 2842<br>St. Petersburg 33731 Pinellas | | 631010 | 523070 | 2 | 3/79 | N.E. unincorporated area int sys | 385 | | |
| Cert. | City of St. Petersburg<br>same | | 631010 | 631060 | 2 | 3/79 | A. Whitted diversion sys to NW & SW STP's | 289<br>265 | | |
| Cert. | City of Pensacola<br>P. O. Box 12910<br>Pensacola 32502 Escambia | | 589010 | 428100 | 3 | 3/79 | GI -- PS & FM | 199<br>649 | | |
| Cert. | City of Ft. Myers<br>P. O. Drawer 2217<br>Ft. Myers 33902 Lee | | 392010 | 667040 | 2 | 3/79 | GI -- I/A increase | 487<br>215 | 2,150 | |
| Cert. | City of Ft. Myers<br>same | | 392010 | 667030 | 3 | 3/79 | GI -- I/A increase | * | 2,850 | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>P. O. Box 330316<br>Miami 33133 Dade | | 377010 | 375060 | 3 | 4/79 | GI -- cost increase | 1,527<br>1,145 | | |
| Cert. | City of Monticello<br>P. O. Box 533<br>Monticello 32344 Jefferson | | NA | 646010 | 1 | 4/79 | GI - swamp discharge study | 11<br>8 | | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>same | | NA | 429010 | 3 | 4/79 | GI-Coral Gables rehab | 56<br>42 | | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>same | | NA | 377010 | 1 | 4/79 | GI - coll sys study | 241<br>181 | | |

*Certified against FY 80 Reserve for I/A increases.

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | Miami-Dade Water & Sewer Auth<br>P. O. Box 330316<br>Miami 33133 Dade | | 377010 | 375190 | 3 | 4/79 | Int N-15, 16; PS 12-P2 | 2,025 | | |
| Cert. | Broward County<br>201 S E 6th St.<br>Ft. Lauderdale 33301 Broward | | 574010 | 574270 | 3 | 4/79 | GI-UC and ICR study | 1,519<br>71 | | |
| Cert. | City of Tallahassee<br>City Hall<br>Tallahassee 32304 Leon | | 581010 | 581100 | 3 | 4/79 | GI — cost increase | 53<br>319 | | |
| Cert. | City of Winter Garden<br>P. O. Box 1005<br>Winter Garden 32787 Orange | | 393020 | 398050 | 3 | 4/79 | Int | 239<br>1,909 | | |
| Cert. | City of Lake City<br>P. O. Box 202<br>Lake City 32055 Columbia | | 462010 | 462010 | 2 | 4/79 | GI-SSES | 1,432<br>181 | | |
| Cert. | City of Ft. Lauderdale<br>P. O. Box 14250<br>Ft. Lauderdale 33302 Broward | | 574010 | 474060 | 3 | 5/79 | Coral Ridge interconnector (3/IR) | 136<br>5,093 | | |
| Cert. | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | | NA | 480040 | 3 | 5/79 | Lakewood PS & FM | 3,820<br>904 | | |
| Cert. | City of North Miami Beach<br>P. O. Box 551<br>Daytona Beach 32015 Volusia | | 377010 | 745010 | 1 | 5/79 | Coll sym study | 678<br>110 | | |
| Cert. | City of Daytona Beach<br>P. O. Box 552<br>Daytona Beach 32015 Volusia | | 620010 | 437010 | 3 | 5/79 | GI — sldg dewater fac | 82<br>5,900<br>4,425 | | |

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs PL Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | Miami-Dade Water & Sewer Auth.<br>P. O. Box 330316<br>Miami 33133 Dade | | 429100 | 429050 | 3 | 5/79 | GI -- Pinos PS | 580<br>435 | | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>same | | 377010 | 375230 | 3 | 5/79 | Int M-17 & PS S-P2 | 1,345<br>1,009 | | |
| Cert. | Hillsborough County<br>P. O. Box 1110<br>Tampa 33601 Hillsborough | | NA | 682010 | 1 | 5/79 | SI -- Ruskin & Wimauma coll sys study | 88<br>66 | | |
| Cert. | Hillsborough County<br>same | | NA | 682010 | 1 | 5/79 | SI -- S. Co. eff & bldg site studies | 199<br>149 | | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>same | | 377010 | 377130 | 2 | 5/79 | Ints S-20 and S-21 and PSs | 211<br>158 | | |
| Cert. | City of Juno Beach<br>841 Ocean Drive<br>Juno Beach 33408 Palm Beach | | 613010 | 741010 | 2+3 | 5/79 | PS & FM to Loxahatchee STP | 459<br>344 | | |
| Cert. | Hernando County<br>P. O. Box 185<br>Brooksville 33512 Hernando | | NA | 627010 | 1 | 5/79 | 201 fac plan | 169<br>127 | | |
| Cert. | Miami-Dade Water & Sewer Auth.<br>same | | 375090 | 375220 | 3 | 5/79 | Int M-14 & PS TP3 | 3,783<br>2,837 | | |
| Cert. | City of Delray Beach<br>100 N. W. 1st Ave.<br>Delray Beach 33444 Palm Beach | | NA | 653010 | 1 | 5/79 | SI - Change Order No.3 | 263<br>197 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 1 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Ft. Lauderdale<br>P. O. Drawer 14250<br>Ft. Lauderdale 33310 Broward | | 574010 | 474330 | 1 | 6/79 | Bldg plan | 179<br>134 | | |
| Cert. | Miami-Dade Water & Sewer Auth<br>P. O. Box 330316<br>Miami 33133 Dade | | 375070 | 375180 | 3 | 6/79 | Inte & PSs: B-7, 12P3, B-8, 12 P1, 12 P5, B-6 | 4,975<br>3,731 | | |
| Cert. | City of Clearwater<br>P. O. Box 4748<br>Clearwater 33518 Pinellas | | 461020 | 461010 | 3 | 6/79 | GI -- NE off transmission line & Alligator Cr. PM | 2,631<br>1,973 | | |
| Cert. | City of Largo<br>P. O. Box 296<br>Largo 33540 Pinellas | | NA | 493010 | 3 | 6/79 | GI -- standby generator fac & U/G eldg fac efficiency | 760<br>570 | | |
| Cert. | Palm Beach County<br>P. O. Box 16097<br>West Palm Beach 33406 | | 613010 | 613140 | 3 | 6/79 | PS & FM 209 (3/2R)<br>PS & FM 59 | 1,088<br>816 | | |
| Cert. | Palm Beach County<br>same | | 613010 | 613150 | 3 | 6/79 | PSs & FMs 204 & 227 (3/2R) | 4,249<br>3,187 | | |
| Cert. | Palm Beach County<br>same | | 613010 | 613160 | 3 | 6/79 | PS & FM 240 (3/2R) | 1,389<br>1,042 | | |
| Cert. | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | | 591010 | 490030 | 3 | 6/79 | GI -- Cedar Hills PS | 872<br>654 | | |
| Cert. | City of Niceville<br>101 Armstrong Ave.<br>Niceville 32578 Okaloosa | | 506050 | 506080 | 3 | 6/79 | Rocky Bayou PS & FM | 515<br>386 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Ft. Myers<br>P. O. Box 2217<br>Ft. Myers 33902 Lee | | 392010 | 667010 | 2 | 6/79 | U/G & exp Raleigh St. STP & Bowling Green STP | 451 | | |
| Cert. | City of Pensacola<br>P. O. Box 12910<br>Pensacola 32501 Escambia | | NA | 589010 | 1 | 6/79 | GI -- Estuarine study | 338<br>104 | | |
| Cert. | Charlotte County<br>116 W. Olympia Ave.<br>Punta Gorda 33950 Charlotte | | NA | 628010 | 1 | 6/79 | GI -- SSES | 78<br>61 | | |
| Cert. | Hillsborough County<br>P. O. Box 1110<br>Tampa 33601 Hillborough | | NA | 682010 | 1 | 6/79 | GI -- UC/ICR study | 46<br>76 | | |
| Cert. | Bradenton/Manatee Co.<br>P. O. Drawer 730<br>Bradenton 33505 Manatee | | NA | 540010 | 1 | 6/79 | GI - exp scope of SSES | 57<br>169 | | |
| Cert. | City of New Smyrna Beach<br>P. O. Box 490<br>New Smyrna B. 32049 Volusia | | NA | 619010 | 1 | 6/79 | GI -- SSES (additional work) | 127<br>19 | | |
| Cert. | City of Gainesville<br>P. O. Box 490<br>Gainesville 32602 Alachua | | NA | 497010 | 1 | 6/79 | GI -- UC/ICR & pre-treatment studies | 14<br>53 | | |
| Cert. | City of St. Augustine<br>P. O. Drawer 210<br>St. Augustine 32084 St.Johns | | NA | 664010 | 1 | 6/79 | GI -- SSES cost increase | 40<br>3 | | |
| Cert. | City of Milton<br>P. O. Box 312<br>Milton 32570 Santa Rosa | | NA | 625010 | 1 | 6/79 | GI -- SSES | 2<br>105 | | |
| | | | | | | | | 79 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / PL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs By Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | Miami-Dade Water & Sewer Auth | | NA | 377010 | 1 | 6/79 | GI -- SSES continuation | 305 | | |
| Cert. | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | | 591010 | 490050 | 2 | 6/79 | GI - Interest costs | 229<br>7 | | |
| Cert. | City of Jacksonville<br>same | | NA | 591010 | 1 | 6/79 | GI — UC/ICE study | 5<br>220 | | |
| Cert. | City of Jacksonville<br>same | | NA | 541010 | 3 | 6/79 | GI — Interest costs | 165<br>116 | | |
| Cert. | City of Jacksonville<br>same | | NA | 541070 | 3 | 6/79 | GI — Interest costs | 87<br>27 | | |
| Cert. | City of Jacksonville Beach<br>City Hall<br>Jacksonville B. 32250 Duval | | NA | 614010 | 1 | 6/79 | GI — SSES increased costs | 20<br>27 | | |
| Cert. | City of Crestview<br>P. O. Box 1207<br>Crestview 32536 Okaloosa | | NA | 432010 | 1 | 6/79 | GI — SSES | 20<br>39 | | |
| Cert. | City of Largo<br>P. O. Box 296<br>Largo 33540 Pinellas | | NA | 493010 | 3 | 6/79 | Pretreatment program | 29<br>4 | | |
| Cert. | City of Pensacola<br>P. O. Box 12910<br>Pensacola 32502 Escambia | | 428010 | 428110 | 3 | 6/79 | Cost decrease (low bid | 3<br>(-293)<br>(-221) | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Cert. | City of Niceville<br>101 Armstrong Ave.<br>Niceville 32578 Okaloosa | | 506020 | 506030 | 3 | 6/79 | Reg STP | 3,596 | | |
| Cert. | City of Niceville<br>same | | 506020 | 506100 | 3 | 6/79 | Eff disp sys, 3 reg PSs & PMs | 2,697<br>3,544 | | |
| Cert. | City of Niceville<br>same | | 506020 | 506030 | 3 | 6/79 | GI — A/I 10% | 2,658 | | |
| Cert. | City of Niceville<br>same | | 506020 | 506100 | 3 | 6/79 | GI - A/I 10% | * | 121 | |
| Cert. | Pinellas County<br>315 Haven St.<br>Clearwater 33516 Pinellas | | NA | 431010 | 3 | 6/79 | GI — cost increase | *<br>4,580 | 2,800 | |
| Cert. | Pinellas County<br>same | | NA | 431010 | 3 | 6/79 | GI — cost increase | 3,435<br>871 | | |
| Cert. | Pinellas County<br>same | | NA | 431010 | 3 | 6/79 | GI — 10% I/A | 653 | | |
| | | | | | | | Certified Projects Totals ($1000's): | *<br>~~$87,090~~<br>$66,455 | 620<br>$23,441 | |

*Certified against FY 80 Reserve for A/I increases.

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

STATE OF FLORIDA — FUNDABLE PORTION — EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | City of St. Petersburg | 0021407 sy | 631010 | 631080 | 2 | 10/79 | U/G Albert Whitted STP | 940 | | |
| 1108 | P. O. Box 2842 St. Petersburg 33731 Pinellas | 073004 | | | | | | 705 | | |
| 2 | City of Ft. Lauderdale | 0020311 sy | 574010 | 474310 | 2 | 10/79 | U/G & exp 6th St. Bldg fac | 855 | | |
| 1055 | P. O. Drawer 14250 Ft. Lauderdale 33303 Broward | 001017 | | | | | | 641 | 727 | |
| 3 | City of Jacksonville | 0026000 sy | 591010 | 480050 | 2 | 10/79 | Bldg side stream fac | 1,000 | | |
| 1043 | 220 East Bay St. Jacksonville 32202 Duval | 016XXX | | | | | | 750 | 1,000 | |
| 4 | City of Tallahassee | 0027529 sy | 581010 | 581080 | 3 | 10/79 | GI — S.E. sprayfield lease | 2,000 | | 2,000 II |
| 1034 | City Hall Tallahassee 32304 Leon | 052002 | | | | | | 1,500 | 2,000 | |
| 5 | City of Treasure Island | 0027588 sy | 535010 | 535030 | 3 | 10/79 | FS, FM to St. Pete NW STP | 1,379 | | 1,379 IVB |
| 1021 | 120 - 108 Ave. Treasure Island 33706 Pinellas | 007001 | | | | | | 1,034 | | |
| 6 | City of Tallahassee | 0027529 sy | 581020 | 581040 | 3 | 11/79 | 7.5 mgd exp to Smith STP & SE irr sys, 17.5 mgd sldg fac | 15,690 | | 12,000 I<br>3,690 II |
| 999 | City Hall Tallahassee 32304 Leon | 052002 | | | | | | 11,768 | 3,690 | |
| 7 | City of Jacksonville | 0020885 sy | 541020 | 541010 | 3 | 11/79 | GI — sldg fac for Arlington East | 1,333 | | 1,333 I |
| 993 | same as above | 016XXX | | | | | | 1,000 | 1,333 | |
| 8 | Okaloosa County | 0027502 sy | 644040 | 644050 | 3 | 11/79 | Exp & U/G Garnier STP, irr fac | 8,250 | | 4,750 I<br>3,500 II |
| 981 | County Court House Annex Shalimar 32579 Okaloosa | No number | | | | | | 6,188 | 3,500 | |
| 9 | Pinellas County | 0027651 sy | NA | 582010 | 1 | 9/80 | G.I. — Oldsmar spray irr study | 40 | | |
| 980 | 315 Haven St. Clearwater 33516 Pinellas | 074001 | | | | | | 30 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 / 980 | Pinellas County<br>315 Haven St.<br>Clearwater 33516 Pinellas | 0030406 ay<br>075001 | NA | 592010 | 1 | 10/79 | G.I. — Tarpon Springs soil study | 12<br>9 | | |
| 11 / 979 | Lee County<br>P. O. Box 398<br>Ft. Myers 33907 Lee | 0021261 ay<br>126XXX | 392010 | 392170 | 2 | 10/79 | Sldg processing fac | 770<br>578 | 770 | |
| 11 / 979 | City of Niceville<br>101 Armstrong Ave.<br>Niceville 32578 Okaloosa | 0021181 ay<br>144001 | 506040 | 506070 | 3 | 12/79 | Valparaiso PS & FM | 610<br>458 | | 610 IV B |
| 13 / 971 | City of New Port Richey<br>320 E. Main St.<br>New Port Richey 33552 Pasco | 0020931 ay<br>149001 | 564010 | 666010 | 2 | 9/80 | U/G & exp STP, FM & irr sym | 515<br>386 | | |
| 14 / 968 | City of Plant City<br>P. O. Drawer "C"<br>Plant City 33566 Hillsborough | 0026557 ay<br>054001 | 604010 | 604120 | 2 | 11/79 | U/G sldg fac | 18<br>14 | | |
| 15 / 944 | City of Inverness<br>P. O. Box 337<br>Inverness 32650 Citrus | 0027634 ay<br>No number | 578030 | 578030 | 3 | 12/79 | 1.5 mgd STP, off disp sym, master PS & FM | 3,480<br>2,610 | 261 | 2,610 I<br>870 IV |
| 16 / 943 | Monroe County<br>Wing II, Pub. Serv. Bldg.<br>Key West 33040 Monroe | 0030562 cy<br>134001 | NA | 602010 | 1 | 11/79 | GI — water quality study | 260<br>195 | | |
| 17 / 942 | Lee County<br>P. O. Box 398<br>Ft. Myers 33902 Lee | 0021261 ay<br>126XXX | 392010 | 392030 | 2 | 11/79 | GI — U/G Cont. Ft. Myers STP | 251<br>188 | | |
| 18 / 940 | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | 0026450 ay<br>016002 | 591010 | 543040 | 2 | 11/79 | U/G Dist. II STP | 600<br>450 | | |

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

STATE OF FLORIDA

FUNDABLE PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No. FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Assist.-$1000's | Innov.Elgbl. Cost-$1000's / Alterv.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs FY Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 19 | Pasco County<br>P. O. Drawer 609<br>Port Richey 33568 Pasco | 0020273 ay<br>153001 | 520010 | 520060 | 2 | 9/80 | Dade City off disp line & PS | 104<br>78 | | |
| 19 | Loxahatchee Riv.Env.Cont.Dist.<br>P. O. Box 286<br>Jupiter 33458 Palm Beach | 0034649 ay<br>083001 | NA | 485010 | 1 | 9/80 | 201 fac plan | 100<br>75 | | |
| 21 | Pasco County<br>same as above | cy<br>153002 | 564010 | 564040 | 2 | 12/79 | West STP | 900<br>675 | | |
| 22 | City of Bradenton<br>P. O. Box 730<br>Bradenton 33506 Manatee | 0021369 ay<br>128001 | 540010 | 681010 | 2 | 12/79 | I/C & exp sldg fac | 61<br>46 | | |
| 23 | City of Lake Clarke Shores<br>1701 Barbados Road<br>Lake Clarke Shores 33406 P.B. | 0021237 ay<br>No number | 613010 | 700010 | 2 | 12/68 | Master PS to Palm Beach reg STP | 27<br>20 | | |
| 24 | City of Brooksville<br>26 S. Brooksville Ave.<br>Brooksville 33512 Hernando | cy<br>114001 | 603010 | 603060 | 2 | 12/79 | I/C & exp School St. STP, PSs, PSs, irr syn | 881<br>660 | 441 | |
| 24 | City of Brooksville<br>same | cy<br>114001 | 603010 | 603130 | 3 | 12/79 | Irr site purchase | 2,186<br>1,640 | 2,186 | |
| 26 | City of Quincy<br>City Hall<br>Quincy 32351 Gadsden | 0029033 ay<br>No number | 641010 | 641020 | 2 | 1/80 | I/C STP | 13<br>10 | | |
| 27 | Town of Havana<br>Town Hall<br>Havana 32351 Gadsden | 0030333 ay<br>109001 | 572030 | 572040 | 3 | 1/80 | I/C & exp STP | 400<br>300 | | 400 1 |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs FY Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 / 920 | Town of Callahan<br>Box 162<br>Callahan 32011 Nassau | 0030261 sy<br>138001 | 593010 | 593020 | 2+3 | 10/80 | 0.3 mgd STP | 1,183<br>887 | | 1,183 I |
| 28 / 920 | City of Tampa<br>One City Hall Plaza<br>Tampa 33602 Hillsborough | 0020940 sy<br>No number | NA | 634010 | 1 | 11/79 | GI - Tampa/Hillsborough energy study | 125<br>93 | | |
| 30 / 919 | Broward County<br>P. O. Box 9448<br>Ft. Lauderdale 33310 Broward | 0026255 sy<br>Multiple | 574010 | 574560 | 2 | 1/80 | 30 mgd exp to Hollywood STP | 2,650<br>1,988 | | |
| 30 / 919 | City of Panama City<br>P. O. Box 1880<br>Panama City 32401 Bay | 0020451 sy<br>089001 | 659010 | 659030 | 3 | 1/80 | Exp & U/G St. Andrews STP, outfall | 4,785<br>3,589 | | 4,785 I |
| 32 / 918 | City of Ft. Meade<br>P. O. Box 856<br>Ft. Meade 33841 Polk | 0020290 sy<br>160001 | 606010 | 606040 | 2 | 1/80 | Exp STP | 67<br>50 | | |
| 33 / 916 | City of Ft. Pierce<br>P. O. Box 3191<br>Ft. Pierce 33450 St. Lucie | 0027278 sy<br>173001 | 463010 | 463020 | 2 | 1/80 | Exp & U/G STP | 725<br>544 | | |
| 34 / 913 | ACME Improvement Dist.<br>P. O. Box 248<br>Loxahatchee 33470 Palm Beach | cy<br>No number | 613010 | 701010 | 2 | 2/80 | Exp STP, INT disp sys | 200<br>150 | | |
| 35 / 908 | Polk County<br>P. O. Box 60<br>Bartow 33830 Bartow | cy<br>No number | N/A | 609010 | 1 | 12/79 | Dundee and Lake Hamilton 201 fac plan | 75<br>56 | | |
| 35 / 908 | Polk County,<br>same | 0021318 sy<br>162001 | N/A | 548010 | 1 | 9/80 | GI — Haines City irr site study | 35<br>28 | | |

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

STATE OF FLORIDA

FUNDABLE PORTION.

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No. FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 | City of Perry | 0026387 ay | 570020 | 570030 | 3 | 2/80 | U/G STP | 1,000 | | |
| 907 | P. O. Box 109 Perry 32347 Taylor | No number | | | | | | 750 | | |
| 37 | City of Williston | 0025127 ay | 649010 | 649020 | 2 | 2/80 | U/G STP, irr sys | 63 | | |
| 907 | P. O. Drawer 160 Williston 32696 Levy | 127001 | | | | | | 47 | | |
| 39 | City of Bartow | 0026026 ay | 598010 | 598060 | 2 | 9/80 | U/G STP | 84 | | |
| 901 | 250 N. Central Ave. Bartow 33830 Polk | 154001 | | | | | | 63 | | |
| 40 | City of Gainesville | 0027251 ay | N/A | 497010 | 1 | 1/80 | CI — user charge/ ICR study, pretreat- ment program | 54 | | |
| 899 | P. O. Box 490 Gainesville 32602 Alachua | 005XXX | | | | | | 40 | | |
| 40 | City of Gainesville | 0027251 ay | N/A | 497010 | 1 | 2/80 | CI — sldg farm site analysis | 20 | | |
| 899 | P. O. Box 490 Gainesville 32602 Alachua | 005XXX | | | | | | 15 | | |
| 40 | City of Gainesville | 0027251 cy | N/A | 497010 | 1 | 3/80 | CI — Paynes Prairie Environmental study | 100 | | |
| 899 | same | 005001 | | | | | | 75 | | |
| 40 | City of Gainesville | 0032379 cy | N/A | 497010 | 1 | 3/80 | CI — Lake Kanapaha Environmental study | 300 | | |
| 899 | same | 005003 | | | | | | 225 | | |
| 40 | City of Wauchula | 0023949 ay | 624010 | 624030 | 2 | 2/80 | U/G & exp STP | 140 | | |
| 899 | P. O. Bdx 818 Wauchula 33873 Hardee | No number | | | | | | 105 | | |
| 45 | City of Ocala | cy | N/A | 621010 | 1 | 4/80 | CI — irr site study | 203 | | |
| 897 | P. O. Box 1270 Ocala 32670 Marion | 133003 | | | | | | 152 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 46 / 894 | City of Belle Glade<br>110 S. W. Avenue E<br>Belle Glade 33430 Palm Beach | 0027740 sy<br>085001 | 626010 | 724010 | 2 | 2/80 | Exp STP to 3 mgd | 110 | | |
| | | | | | | | | 83 | 11 | |
| 47 / 889 | Palm Beach County<br>P. O. Box 1989<br>West Palm Beach 33402 Palm B. | 0027740 sy<br>085001 | N/A | 626010 | 1 | 5/80 | GI -- Belle Glade test well | 2,493 | | 2,119 II |
| | | | | | | | | 1,870 | | |
| 48 / 885 | City of Green Cove Springs<br>229 Walnut St.<br>Green Cove Springs 32043 Clay | 0020915 sy<br>102001 | 679010 | 679020 | 2 | 3/80 | Exp STP to 1.1 mgd | 115 | | |
| | | | | | | | | 86 | 28 | |
| 49 / 880 | Polk County<br>P. O. Box 60<br>Bartow 33830 Bartow | cy<br>No number | N/A | 607010 | 1 | 6/80 | Loughman 201 fac plan | 49 | | |
| | | | | | | | | 37 | | |
| 50 / 878 | Polk County<br>P. O. Box 60<br>Bartow 33830 Polk | 0020192 sy<br>161001 | N/A | 600010 | 1 | 9/80 | GI -- Frostproof irr site study | 25 | | |
| | | | | | | | | 19 | | |
| 51 / 875 | Brevard County<br>2575 N. Courtenay Parkway<br>Merritt Island 32952 Brevard | 0026735 sy<br>099010 | 579010 | 579020 | 2 | 9/80 | U/G Melbourne Beach reg STP | 45 | | |
| | | | | | | | | 34 | | |
| 52 / 591 | City of Orlando<br>City Hall<br>Orlando 32801 Orange | 0030613 sy<br>037001 | 399020 | 399080 | 1 | 3/80 | S.E. int syn to E. reg STP | 1,049 | | |
| | | | | | | | | 787 | | |
| 53 / 586 | City of Largo<br>P. O. Box 296<br>Largo 33540 Pinellas | cy<br>060001 | 622010 | 493030 | 3 | 2/80 | South int | 3,200 | | 3,200 IVB |
| | | | | | | | | 2,400 | | |
| 54 / 581 | City of Clearwater<br>P. O. Box 4748<br>Clearwater 33518 Pinellas | 0021857 cy<br>065001 | 622010 | 461080 | 3 | 3/80 | Sunset Point Rd. int, PS & FM to Marshall Street STP | 740 | | |
| | | | | | | | | 555 | | 740 IV B |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

STATE OF FLORIDA

FUNDABLE PORTION

EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / PL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | City of Ft. Lauderdale | 0020311 ay | 574010 | 474290 | 2 | 3/80 | Convert 6th St. STP to master PS | 164 | | |
| 580 | P. O. Drawer 14250 Ft. Lauderdale 33302 Broward | 001017 | | | | | | 123 | | |
| 56 | Florosa Water & Sewer Dist. | cy | 589010 | 702010 | 2 | 3/80 | Int SPI & PS SSI to reg STP | 112 | | |
| 566 | 610 Skylark Road Mary Esther 32569 Okaloosa | No number | | | | | | 84 | | |
| 57 | City of Niceville | 0020516 ay | 506060 | 506090 | 3 | 3/80 | Meigs-Seminole PS & FM | 370 | | 370 IVB |
| 565 | 101 Armstrong Ave. Niceville 32578 Okaloosa | 145001 | | | | | | 278 | | |
| 58 | Miami-Dade Water Sewer Auth. | cy | 377010 | 377090 | 3 | 4/80 | S. Dist., ints S-1, thru S-7, PSs 20-P1, 105-P1, 28-P1 | 34,906 | | 34,906 IVB |
| 560 | P. O. Box 330316 Miami 33133 Dade | 017007 | | | | | | 26,179 | | |
| 59 | City of Homestead | 0025089 ay | 377010 | 657050 | 2 | 4/80 | Phase II -- greater Homestead area PS & int | 263 | | |
| 546 | P. O. Drawer 339 Homestead 33030 Dade | 017013 | | | | | | 197 | | |
| 60 | City of Ft. Lauderdale | 0020362 ay | 574010 | 474190 | 3 | 5/80 | PS & FM from Port Everglades package plants to reg STP | 906 | | 906 IVB |
| 540 | P. O. Box 14250 Ft. Lauderdale 33302 Broward | 001019 | | | | | | 680 | | |
| 61 | City of Jacksonville | 0026123 ay | 543010 | 543060 | 2 | 4/80 | San Mateo & Oceanway PS & gravity lines | 409 | | |
| 534 | 220 E. Bay St. Jacksonville 32202 Duval | 016002 | | | | | | 307 | | |
| 62 | City of Jacksonville | 0026468 cy | 591010 | 490100 | 2 | 4/80 | Ext SW transmission lines | 2,000 | | |
| 533 | same | 016005 | | | | | | 1,500 | | |
| 62 | Pasco County | 0020273 ay | 520010 | 520020 | 2 | 4/80 | N.E. int | 85 | | |
| 533 | 200 Commerce Ave. Port Richey 33568 Pasco | 153001 | | | | | | 64 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION

EFFECTIVE October 1, 1[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 64 / 532 | City of Jacksonville 220 E. Bay St. Jacksonville 32202 Duval | 0023779 ay / 016003 | 591010 | 541100 | 2 | 5/80 | Ext Arlington transmission lines | 751 / 563 | | |
| 65 / 531 | City of Jacksonville same | 0026123 ay / 016002 | 543010 | 543080 | 2 | 5/80 | San Mateo gravity line | 338 / 254 | | |
| 66 / 530 | Sarasota County P. O. Box 8 Sarasota 33578 Sarasota | 0024791 ay / 177002 | 587010 | 587020 | 2 | 9/80 | N. County int & PS to City STP | 72 / 54 | | |
| 67 / 529 | City of Jacksonville same | 0023779 ay / 016003 | 591010 | 541080 | 2 | 5/80 | Ft. Caroline PS & FM | 320 / 240 | | |
| 67 / 529 | City of Jacksonville same | 0026719 ay / 016005 | 591010 | 490120 | 2 | 5/80 | Oakhill FM | 150 / 112 | | |
| 69 / 526 | City of Plant City P. O. Drawer "C" Plant City 33566 Hillsborough | 0026557 cy / 054001 | 604010 | 604020 | 2 | 5/80 | Phase I — exp & U/G LSs | 62 / 47 | | |
| 70 / 524 | Cape Coral 1105 Cape coral Parkway Cape Coral 33904 Lee | 0030007 ay / 126008 | 392010 | 675010 | 2 | 6/80 | LS & FM to North Ft. Myers STP | 151 / 113 | | |
| 71 / 523 | City of Plant City same | 0026557 cy / 054001 | 604010 | 604080 | 2 | 6/80 | Plant Ave. int | 76 / 57 | | |
| 71 / 523 | City of Tampa City Hall Tampa 33602 Hillsborough | 0027324 ay / 053001 | 634010 | 473170 | 3 | 6/80 | Northwest int sys (3/ZR) | 3,772 / 2,829 | | 3,772 IVB |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Alterm. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 73 | Palm Beach County | 0030112 sy | 613010 | 613240 | 3 | 6/80 | Cent. Dist., Sec. V | 6,626 | | 6,626 IVB |
| 522 | P. O. Box 16097 W. Palm Beach 33406 Palm Bch. | 087001 | | | | | FMs, PSs & ints | 4,970 | | |
| 73 | City of Quincy | 0029033 sy | N/A | 641010 | 1 | 6/80 | GI -- SSES | 100 | | |
| 522 | City Hall Quincy 32351 Gadsden | No number | | | | | | 75 | | |
| 73 | City of Starke | 0028126 sy | 547030 | 547060 | 3 | 7/80 | SS rehab | 180 | | 135 IIIA |
| 522 | City Hall P.O. Drawer C Starke 32091 Bradford | No number | | | | | | 135 | | |
| 76 | City of Plant City | 0026557 cy | 604010 | 604040 | 2 | 6/80 | Risk St. int | 26 | | |
| 521 | P. O. Drawer "C" Plant City 33566 Hillsborough | 054001 | | | | | | 20 | | |
| 77 | City of Plant City | 0026557 sy | N/A | 604010 | 1 | 7/20 | GI - SSES | 70 | | |
| 520 | same | 054001 | | | | | | 53 | | |
| 78 | Polk County | cy | 601010 | 601040 | 2 | 6/80 | Int -- S. Lakeland to Mulberry STP | 95 | | |
| 516 | P. O. Box 60 Bartow 33830 Polk | 298001 | | | | | | 71 | | |
| 79 | Palm Beach County | cy | 613010 | 613190 | 3 | 7/80 | Cent. Dist. Sect. IV FMs & PSs | 1,526 | | 1,526 IVB |
| 515 | same | 087001 | | | | | | 1,145 | | |
| 80 | City of Riviera Beach | 0026913 cy | 613010 | 539020 | 2 | 7/80 | PS 35 & FM, PS 100 & FM | 31 | | |
| 513 | City Hall Riviera Beach 33404 Palm B. | 079001 | | | | | | 23 | | |
| 81 | Town of Palm Beach | 0021822 sy | 613010 | 565040 | 2+3 | 8/80 | SS rehab | 750 | | 750 IIIB |
| 512 | P. O. Box 2029 Palm Beach 33480 Palm B. | No number | | | | | | 563 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 82 / 508 | City of Ft. Pierce<br>P.O. Box 1480<br>Ft. Pierce 33450 St. Lucie | 0027278 cy<br>173001 | 463010 | 463040 | 2 | 7/80 | Int, PS & FM | 99<br>74 | | |
| 83 / 500 | City of Bartow<br>250 N. Central Ave.<br>Bartow 33830 Polk | 0026018 ay<br>154002 | 598010 | 598020 | 2 | 9/80 | Airport PS & FM to City STP | 128<br>96 | | |
| 83 / 500 | City of Belle Glade<br>110 S.W. Ave. E<br>Belle Glade 33430 Palm B. | 0031291 ay<br>085002 | 626010 | 724030 | 2 | 7/80 | Arrowhead FM & LS | 74<br>56 | | |
| 83 / 500 | City of Gainesville<br>P. O. Box 490<br>Gainesville 32602 Alachua | 0032379 cy<br>005003 | 497010 | 497030 | 2 | 7/80 | Tower Rd. PS & FM | 35<br>26 | | |
| 85 / 500 | City of Gainesville<br>same | 0023990 ay<br>005XXX | 497010 | 497020 | 3 | 8/80 | Possum Creek master PS & FM | 562<br>423 | | 562 IVB |
| 87 / 496 | Lee County<br>P. O. Box 398<br>Ft. Myers 33902 Lee | by<br>126XXX | 392010 | 392080 | 2 | 8/80 | Int, FM & PS — Matlacha Is. | 16<br>12 | | |
| 88 / 492 | City of Wauchula<br>P. O. Box 818<br>Wauchula 33873 Hardee | 0023949 ay<br>No number | 624010 | 624050 | 2 | 8/80 | South int | 36<br>27 | | |
| 89 / 492 | City of Blountstown<br>125 W. Central Ave.<br>Blountstown 32424 Calhoun | cy<br>100001 | 548030 | 548060 | 3 | 8/80 | PSs, FMs & ints | 155<br>116 | | 155 IVB |
| 90 / 490 | City of Chipley<br>P. O. Drawer "Q"<br>Chipley 32428 Washington | 0027570 ay<br>No number | 576010 | 576080 | 2+3 | 8/80 | Industrial area int | 100<br>75 | | 100 IVB |

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

STATE OF FLORIDA

FUNDABLE PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 91 / 470 | City of Plant City<br>P. O. Drawer "C"<br>Plant City 33566 Hillsborough | 0026557 cy<br>054001 | 604010 | 604060 | 2 | 8/80 | Walden Lake Int | 96<br>72 | | |
| 92 / 468 | Palm Beach County<br>P. O. Box 16097<br>W. Palm Beach 33406 Palm Bch. | 0023906 ay<br>087001 | 613010 | 613170 | 3 | 9/80 | PSs & FMs 133 & 134 | 1,345<br>1,009 | | 1,345 IVB |
| 93 / 457 | City of Boynton Beach<br>P. O. Box 310<br>Boynton Beach 33435 Palm B. | 0020265 ay<br>081001 | N/A | 496010 | 3 | 9/80 | GI — LSs 316 & 319 | 1,757<br>1,318 | | 1,757 IVB |
| 93 / 457 | City of Boynton Beach<br>same | 0020265 cy<br>081001 | 623010 | 496006 | 2 | 8/80 | Ints to LSs 316, 317 & 319 | 22<br>17 | | |
| 93 / 457 | City of Delray Beach<br>100 N.W. 1st Ave.<br>Delray Beach 33444 Palm B. | cy<br>080001 | 623010 | 653070 | 3 | 9/80 | LS 50 & FM; LS 80, FM & int (3/2R) | 2,410<br>1,808 | | 2,410 IVB |
| 93 / 457 | City of Delray Beach<br>same | cy<br>008001 | 623010 | 653080 | 2 | 8/80 | Gravity ints to LSs 50 and 80 | 28<br>21 | | |
| 97 / 456 | City of Boynton Beach<br>same | 0020265 ay<br>081001 | 623010 | 496070 | 2 | 8/80 | San Castle PS & FM, Briney Breezes FM, LSs 18A & RC1 | 20<br>15 | | |
| 98 / 110 | Bay County<br>P. O. Box 2269<br>Panama City 32401 Bay | cy<br>068001 | 450010 | 450070 | 3 | 10/79 | Coll sym for Parker, Callaway, Springfield and Cedar Grove | 4,857<br>3,643 | | 4,857 |
| 99 / 106 | City of Ft. Pierce<br>P. O. Box 3191<br>Ft. Pierce 33450 St. Lucie | cy<br>173001 | N/A | 463010 | 1 | 8/80 | FI — coll sym study | 23<br>17 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

FUNDABLE PORTION

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 100 / 343 | City of Key West<br>P. O. Box 1550<br>Key West 33040 Monroe | 0023976<br>135001 | 465020 | 465030 | 3 | 10/79 | GI -- Phase II rehab of portions of sewer sys | 30,667<br>23,000 | | 30,667 III B |
| | | | | | | | Fundable Portion Totals ($1000's) | 159,051<br>119,294 | 0<br>15,967 | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 | City of St. Petersburg | 0021385 ay | 631040 | 631050 | 3 | 10/80 | Reg sldg dewater fac | 4,000 | | |
| 1108 | P. O. Box 2842 St. Petersburg 33731 Pinellas | 073XXX | | | | | | 3,000 | | |
| 101 | City of St. Petersburg | 0021407 ay | 631060 | 631070 | 3 | 10/80 | Albert Whitted Diversion sys to S.W. & N.W. STP's | 5,827 | | |
| 1108 | Same as above | 073XXX | | | | | | 4,370 | | |
| 101 | City of St. Petersburg | 0021407 ay | 631080 | 631090 | 3 | 11/80 | U/G Whitted STP | 9,400 | | |
| 1108 | Same as above | 073004 | | | | | | 7,050 | | |
| 104 | City of St. Petersburg | 0021415 ay | 524050 | 524060 | 3 | 10/80 | N W test well | 347 | | |
| 1088 | Same as above | 073003 | | | | | | 260 | | |
| 105 | City of Ft. Lauderdale | 0020311 ay | 474310 | 474320 | 3 | 11/80 | U/G & exp 6th St. sldg fac | 9,775 | | |
| 1055 | P. O. Drawer 14250 Ft. Lauderdale 33302 Broward | 001017 | | | | | | 7,331 | 8,309 | |
| 106 | City of Key West | 0025976 ay | 465020 | 465040 | 3 | 10/80 | 4 mgd STP, sldg fac & eff PM | 11,000 | | |
| 1049 | P. O. Box 1550 Key West 33040 Monroe | 135001 | | | | | | 8,250 | | |
| 107 | City of Jacksonville | 0026000 ay | 480030 | 480060 | 3 | 10/80 | Sldg side stream fac | 10,667 | | |
| 1043 | 220 E. Bay St. Jacksonville 32202 Duval | 016XXX | | | | | | 8,000 | | |
| 108 | Broward County | 0031771 ay | 574010 | 574580 | 2 | 11/81 | N. Dist. eff PM & outfall ext | 1,800 | | |
| 1035 | 201 S E 6th St. Ft. Lauderdale 33301 Broward | 001XXX | | | | | | 1,350 | | |
| 108 | Broward County | 0031771 ay | 574580 | 574590 | 3 | 11/82 | N. Dist eff PM & outfall ext | 18,988 | | |
| 1035 | 201 S E 6th St. Ft. Lauderdale 33310 Broward | 001XXX | | | | | | 14,241 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE December 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 110 / 1032 | City of St. Petersburg<br>P. O. Box 2842<br>St. Petersburg 33731 Pinellas | 0021385 sy<br>073001 | 522040 | 522050 | 3 | 10/80 | S.W. eff distribution sys | 2,667 | | |
| 111 / 1016 | City of St. Petersburg Beach<br>7701 Boca Ciega Drive<br>St. Petersburg B. 33706 | 0021199 sy<br>068001 | 696020 | 696030 | 3 | 11/80 | LS & FM to St. Petersburg NW STP | 2,000<br>2,000 | | |
| 112 / 997 | Miami-Dade W. & S. Auth.<br>P. O. Box 330316<br>Miami 33133 Dade | 0024805 sy<br>017001 | 377010 | 429120 | 2 | 11/81 | U/G old Virginia Key STP | 1,500<br>1,000 | | |
| 112 / 997 | Miami-Dade W. & S. Auth.<br>Same as above | 0024805 sy<br>017001 | 429120 | 429130 | 3 | 11/82 | U/G old Virginia Key STP | 750<br>9,000 | | |
| 114 / 993 | City of Clearwater<br>P. O. Box 4748<br>Clearwater 33518 Pinellas | 0021857<br>065XXX | 461010 | 405020 | 2 | 11/81 | Marshall St. STP denitrification/filtration(pending deep well tests) | 6,750<br>200<br>150 | | |
| 114 / 993 | City of Clearwater<br>Same as above | 0021857<br>065XXX | 405020 | 405030 | 3 | 11/82 | Marshall St. STP denitrification/filtration | 1,920 | | |
| 116 / 984 | City of Ft. Lauderdale<br>P. O. Drawer 14250<br>Ft. Lauderdale 33040 | 0020362<br>001XXX | 574010 | 474040 | 2 | 11/82 | Fort Everglades eff PS & FM to Hollywood STP | 1,440<br>600<br>450 | | |
| 116 / 984 | City of Ft. Lauderdale<br>Same as above | 0020362<br>001XXX | 474040 | 474150 | 3 | 11/83 | Fort Everglades eff PS & FM to Hollywood STP | 10,133 | | |
| 118 / 982 | City of Tarpon Springs<br>P. O. Box 1575<br>Tarpon Springs 33589 Pinellas | 0030406 sy<br>075001 | 592010 | 688010 | 2 | 2/82 | U/G STP --- nitrification | 7,600<br>220<br>165 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 118 | City of Tarpon Springs | 0030406 ay | 688010 | 688020 | 3 | 11/82 | U/G STP - nitrification | 2,200 | | |
| 962 | P. O. Box 1575 Tarpon Springs 33589 Pinellas | 075001 | | | | | | 1,650 | | |
| 120 | Lee County | cy | 392020 | 392050 | 3 | 11/80 | N. Dist 5 mgd secondary & 9 mgd AWT STP | 11,981 | | |
| 962 | P. O. Box 398 Ft. Myers 33902 Lee | 126XXX | | | | | | 8,986 | | |
| 121 | Pinellas County | cy | 592010 | 592040 | 2 | 10/80 | Phase I U/G N. County STP | 240 | | |
| 981 | 315 Haven St. Clearwater 33516 Pinellas | 076002 | | | | | | 180 | | |
| 121 | Pinellas County | cy | 592040 | 592050 | 3 | 10/81 | Phase I U/G N. County STP | 2,760 | | |
| 981 | Same as above | 076002 | | | | | | 2,070 | | |
| 121 | Pinellas County | cy | 592010 | 592060 | 2 | 10/80 | N. Pinellas off PS & int (EIS required) | 216 | | |
| 981 | Same as above | 076002 | | | | | | 162 | | |
| 121 | Pinellas County | cy | 592060 | 592070 | 3 | 10/81 | N. Pinellas off PS & int | 2,484 | | |
| 981 | Same as above | 076002 | | | | | | 1,863 | | |
| 121 | City of Dunedin | 0021326 | 622010 | 721010 | 2 | 2/82 | Exp STP to 7 mgd | 165 | | |
| 981 | 750 Milwaukee Ave. Dunedin 33528 Pinellas | 066XXX | | | | | | 124 | | |
| 121 | City of Dunedin | 0021326 | 721010 | 721020 | 3 | 11/82 | Exp STP to 7 mgd | 1,653 | | |
| 981 | Same as above | 066XXX | | | | | | 1,240 | | |
| 127 | City of Oldsmar | 0027651 ay | 592010 | 669030 | 2 | 2/82 | U/G STP | 150 | | |
| 930 | P. O. Box 100 Oldsmar 33557 Pinellas | 074001 | | | | | | 112 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 127 / 980 | City of Oldsmar P. O. Box 100 Oldsmar 33557 Pinellas | 0027651 sy / 074001 | 669030 | 669050 | 3 | 11/82 | U/G STP | 700 | | |
| 122 / 980 | City of Oldsmar Same as above | 0027651 sy / 074001 | 592010 | 669070 | 2 | 2/82 | Eff PS & FM | 525 / 200 | | |
| 127 / 980 | City of Oldsmar Same as above | 0027651 sy / 074001 | 669070 | 669080 | 3 | 11/82 | Eff PS & FM | 150 / 1,500 | | |
| 127 / 980 | City of Oldsmar Same as above | 0027651 sy / 074001 | 592010 | 669020 | 2 | 2/82 | Bldg fac | 1,125 / 40 | | |
| 127 / 980 | City of Oldsmar Same as above | 0027651 sy / 074001 | 669020 | 669040 | 3 | 11/82 | Bldg fac | 30 / 200 | | |
| 127 / 980 | City Clearwater P. O. Box 4748 Clearwater 33518 Pinellas | 0031607 sy / 065XXX | 461040 | 461050 | 3 | 11/80 | FM interconnection between East and NE STPs | 150 / 420 | | |
| 127 / 980 | Broward County 201 S. E. 6th St. Ft. Lauderdale 33301 Broward | 0031771 / 001XXX | 574300 | 574600 | 3 | 10/80 | N. Dist. sldg disp sys | 315 / 10,000 | | |
| 135 / 979 | Lee County P. O. Box 398 Ft. Myers 33907 Lee | 0021261 sy / 126XXX | 392170 | 392180 | 3 | 11/80 | Bldg process fac | 7,500 / 8,857 | | |
| 136 / 972 | Santa Rosa County P. O. Box 472 Milton 32570 Santa Rosa | 0024007 sy / No Number | 589010 | 687010 | 2 | 10/80 | Peninsula 5 mgd STP, FMs & irr sys | 6,643 / 1,497 / 1,123 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 136 | Santa Rosa County | 0024007 | 687001 | 687020 | 3 | 10/81 | Peninsula 5 mgd STP, FMs & irr sys | 16,531 | | |
| 972 | P. O. Box 472 Milton 32570 Santa Rosa | No number | | | | | | 12,398 | | |
| 136 | Santa Rosa County | 0024007 | 589010 | 687160 | 3 | 10/81 | Peninsula irr site purchase | 2,667 | | |
| 972 | same | No number | | | | | | 2,000 | | |
| 139 | City of New Port Richey | 0020931 sy | 666010 | 666020 | 3 | 11/82 | I/C & exp STP, FM & irr sys | 5,150 | | |
| 971 | 320 E. Main St. New Port Richey 33552 Pasco | 149001 | | | | | | 3,863 | | |
| 139 | City of Lake Wales | 0026379 | 339010 | 339020 | 2 | 2/82 | Exp STP, int | 571 | | |
| 971 | P. O. Box 1320 Lake Wales 33853 Polk | 164001 | | | | | | 428 | | |
| 139 | City of Lake Wales | 0026379 | 339020 | 339030 | 3 | 11/82 | Exp STP, int | 5,707 | | |
| 971 | same | 164001 | | | | | | 4,280 | | |
| 139 | City of Lake Wales | 0026379 | 339040 | 339060 | 2 | 2/82 | Eff disp sys | 115 | | |
| 971 | same | 164001 | | | | | | 86 | | |
| 139 | City of Lake Wales | 0026379 | 339060 | 339070 | 3 | 11/82 | Eff disp sys | 1,151 | | |
| 971 | same | 164001 | | | | | | 863 | | |
| 144 | City of St. Petersburg | 0023701 sy | 631010 | 522060 | 2 | 2/82 | DeSoto Park spray irr | 31 | | |
| 968 | P. O. Box 2842 St. Petersburg 33731 Pinellas | Multiple | | | | | | 23 | | |
| 144 | City of St. Petersburg | 0023701 sy | 522060 | 522070 | 3 | 11/82 | DeSoto Park spray irr | 305 | | |
| 968 | same | Multiple | | | | | | 229 | | |
| 144 | City of Plant City | 0026557 sy | 604010 | 604100 | 2 | 10/80 | Irr sys | 40 | | |
| 968 | P. O. Drawer C Plant City 33566 Hillsborough | 054001 | | | | | | 30 | | |

1983

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 / 968 | City of Plant City<br>P. O. Drawer C<br>Plant City 33566 Hillsborough | 0026557 sy<br>054001 | 604100 | 604110 | 3 | 3/82 | Irr sys | 400 | | |
| 148 / 966 | City of Ft. Myers<br>P. O. Box 2217<br>Ft. Myers 33902 Lee | 0021270 sy<br>125XXX | 667040 | 667050 | 3 | 10/80 | Reg irr sys Part I | 300<br>14,000 | | |
| 148 / 966 | City of Ft. Myers<br>same | 0021270 sy<br>125XXX | 667040 | 667050 | 3 | 3/82 | CI -- reg irr sys Part II | 10,500<br>30,000 | | |
| 150 / 962 | Seminole-Orange WTA<br>470 Semoran Blvd Seminole/<br>Casselberry 32707 Orange | 0027715 sp<br>Multiple | Multiple | 708010 | 3 | 10/80 | Northerly int to Orlando E STP | 22,500<br>11,069 | | |
| 151 / 955 | Broward County<br>201 S E 6th Street<br>Ft. Lauderdale 33310 Broward | 0027367<br>001XXX | 574190 | 574200 | 3 | 11/81 | Plantation FM 4 PSs to S. Dist. STP | 8,302<br>7,319 | | |
| 152 / 952 | Broward County<br>P. O. Box 9468<br>Ft. Lauderdale 33310 Broward | 0020320 sy<br>001032 | 574320 | 574330 | 3 | 2/81 | N. Lauderdale FM 15 & LS 12 to N. STP | 5,489<br>3,100 | | |
| 153 / 950 | City of Sarasota<br>P. O. Box 1058<br>Sarasota 33578 Sarasota | 0024791 sy<br>174001 | 674010 | 674030 | 3 | 11/81 | Exp STP; irr sys | 2,325<br>6,540 | | |
| 154 / 949 | City of Ft. Lauderdale<br>P. O. Box 14250<br>Ft. Lauderdale 33302 Broward | 0020362 sy<br>001XXX | 474200 | 474210 | 3 | 2/81 | Exp Port Everglades STP from 22 to 37 mgd | 4,905<br>6,920 | | |
| 155 / 947 | City of Starke<br>City Hall P O Drawer C<br>Starke 32091 Bradford | 0028126<br>No number | 547030 | 547040 | 3 | 10/80 | Modify STP; off PS, FM & spray sys | 5,193<br>1,945 | | |
| 156 / 944 | City of Inverness<br>P. O. Box<br>Inverness 32650 Citrus | 0027634 sy<br>No Number | 578010 | 578040 | 3 | 10/80 | Irr site purchase | 1,459<br>120<br>90 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Unov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 157 / 942 | City of Jacksonville 220 E. Bay St. Jacksonville 32202 Duval | 0026000 sy / 016001 | 591010 | 480070 | 2 | 11/82 | Exp Buckman STP from 35 to 70 mgd | 4,442 / 3,331 | | |
| 157 / 942 | City of Jacksonville Same as above | 0026000 sy / 016001 | 480070 | 480080 | 3 | 11/83 | Exp Buckman STP from 35 to 70 mgd | 44,500 / 33,375 | | |
| 157 / 942 | Lee County P. O. Box 398 Ft. Myers 33902 Lee | 0021261 sy / 126XXX | 392030 | 392160 | 3 | 2/81 | U/G Cent. Ft. Myers STP, Phase I FMs & PSs | 8,468 / 6,351 | | |
| 157 / 942 | City of Ft. Myers P. O. Box 2217 Ft. Myers 33902 Lee | 0021270 sy / 125002 | 667010 | 667020 | 3 | 2/81 | Exp & U/G South STP | 6,933 / 5,200 | | |
| 161 / 940 | City of Jacksonville Same as above | 0026450 sy / 016002 | 543040 | 543050 | 3 | 5/81 | U/G Dist II STP | 6,000 / 4,500 | | |
| 162 / 938 | Manatee County P. O. Drawer 730 Bradenton 33506 Manatee | 0027847 sy / 129001 | 540010 | 540040 | 2 | 2/82 | Exp & U/G SW STP | 200 / 150 | | |
| 162 / 938 | Manatee County Same as above | 0027847 sy / 129001 | 540040 | 540060 | 3 | 2/83 | Exp & U/G SW STP | 3,467 / 2,600 | | |
| 162 / 938 | Manatee County Same as above | 0027847 sy / 129001 | 540080 | 540090 | 2 | 5/82 | Eff FM to E. phosphate mines | 1,355 / 1,016 | | |
| 162 / 938 | Manatee County Same as above | 0027847 sy / 129001 | 540010 | 540080 | 3 | 2/83 | Eff FM to E. phosphate mines | 13,552 / 10,164 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 166 / 937 | Orange County P. O. Box 1393 Orlando 32802 Orange | 0022110 sy / 038001 | 692010 | 692040 | 2 | 5/82 | Sand Lake Rd. STP & disp fac | 1,000 / 750 | | |
| 166 / 937 | Orange County Same as above | 0022110 sy / 038001 | 692040 | 692050 | 3 | 2/83 | Sand Lake Rd. STP & disp fac | 34,113 / 25,585 | | |
| 166 / 937 | City of Milton P. O. Box 312 Milton 32570 Santa Rosa | 0021903 sy / 050001 | 625010 | 625020 | 2 | 10/80 | U/G & exp STP; off disp fac, inte & SS rehab | 434 / 325 | | |
| 166 / 937 | City of Milton Same as above | 0021903 sy / 050001 | 625020 | 625030 | 3 | 11/81 | U/G & exp STP; off disp fac | 2,999 / 2,249 | | |
| 170 / 936 | City of Sanford City Hall Sanford 32771 Seminole | 0020141 sy / 042001 | 586010 | 586020 | 2 | 8/82 | U/G STP | 47 / 35 | | |
| 170 / 936 | City of Sanford Same as above | 0020141 sy / 042001 | 586020 | 586060 | 3 | 5/83 | U/G STP | 700 / 525 | | |
| 172 / 933 | Sarasota County P.O. Box 1058 Sarasota 33578 Sarasota | 0025755 sy / 177XXX | 587010 | 587070 | 2 | 5/83 | N. County STP & irr sys | 1,300 / 975 | | |
| 172 / 933 | Sarasota County Same as above | 0025755 sy / 177XXX | 587070 | 587080 | 3 | 2/84 | N. County STP & irr sys | 13,000 / 9,750 | | |
| 172 / 933 | Sarasota County Same as above | 0025755 sy / 177XXX | 587010 | 587090 | 3 | 2/84 | N. County Dist. — irr site purchase | 3,600 / 2,700 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 172 / 933 | Pasco County P. O. Drawer 609 Port Richey 33568 Pasco | 0020273 sy / 153001 | 520060 | 520070 | 3 | 3/82 | Dade City eff disp line | 1,300 / 975 | | |
| 172 / 933 | Pasco County Same as above | 0020273 sy / 153001 | 520010 | 520030 | 2 | 8/82 | Dade City STP, disp sys | 533 / 400 | | |
| 172 / 933 | Pasco County Same as above | 0020273 sy / 153001 | 520030 | 520040 | 3 | 5/83 | Dade City STP, disp sys | 5,333 / 4,000 | | |
| 178 / 932 | City of St. Cloud 1300 Ninth St. St. Cloud 32769 Osceola | 0028959 sy / No Number | 509010 | 686010 | 2 | 8/82 | STP, irr sys. & ints | 1,950 / 1,462 | | |
| 178 / 932 | City of St. Cloud Same as above | 0028959 sy / No Number | 686010 | 686020 | 3 | 5/83 | STP, irr sys & ints | 13,000 / 9,750 | | |
| 178 / 932 | City of St. Cloud Same as above | 0028959 sy / No Number | 509010 | 686030 | 3 | 8/82 | Irr site purchase | 1,150 / 863 | | |
| 179 / 9[illegible] | Pasco County Same as above | cy / 153002 | 564040 | 564060 | 3 | 5/83 | West STP | 8,437 / 6,328 | | |
| 178 / 932 | City of Jacksonville 220 E. Bay St. Jacksonville 32202 Duval | 0026468 sy / 016005 | 490050 | 490080 | 3 | 10/80 | Exp SW STP from 5 to 10 mgd | 6,000 / 4,500 | | |
| 178 / 932 | City of Eustis P. O. Drawer 68 Eustis 32726 Lake | 0021776 sy / 121001 | 611010 | 507010 | 2 | 10/80 | Exp STP, PSs, PMs & spray irr fac | 250 / 188 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Recov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 178 / 932 | City of Eustis P. O. Drawer 68 Eustis 32726 Lake | 0021776 ay / 121001 | 507010 | 507020 | 3 | 11/81 | Exp STP, PSs, PSs & spray irr fac | 5,689 / 4,267 | | |
| 178 / 932 | City of Cantonment P. O. Drawer 1591 Pensacola 32597 Escambia | by / No Number | 610010 | 610020 | 2 | 11/80 | STP | 253 / 190 | | |
| 178 / 932 | City of Cantonment Same as above | by / No Number | 610020 | 610040 | 3 | 8/81 | STP | 2,786 / 2,090 | | |
| 178 / 932 | City of Cantonment Same as above | by / No Number | 610030 | 610050 | 3 | 11/81 | Eff disp sys | 1,270 / 953 | | |
| 188 / 931 | City of Bradenton P. O. Drawer 730 Bradenton | 0021369 ay / 128001 | 681010 | 681020 | 3 | 10/80 | U/G & exp sldg fac | 610 / 458 | | |
| 189 / 930 | City of Lake Clarke Shores 1701 Barbados Rd. Lake Clarke S. 33406 Palm B. | 0021237 ay / No Number | 700010 | 700020 | 3 | 10/80 | Master PS to Palm Beach reg STP | 267 / 200 | | |
| 190 / 929 | City of Lake City P. O. Box 202 Lake City 32055 Columbia | 0025968 ay / 106001 | 462020 | 462030 | 3 | 2/82 | Eff disp sys & SS rehab | 5,300 / 3,975 | | |
| 191 / 928 | City of Lakeland City Hall Lakeland 33802 Polk | 0027405 / 157001 | 608010 | 410010 | 2 | 5/83 | U/G STP | 480 / 360 | | |
| 191 / 928 | City of Lakeland Same as above | 0027405 / 157001 | 410010 | 410030 | 3 | 2/84 | U/G STP | 4,320 / 3,240 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 191 | City of Brooksville | cy | 603060 | 603090 | 3 | 5/81 | U/G & exp School St. STP, PMs, PSs & irr sys | 6,644 | | |
| 928 | 26 S. Brooksville Ave. Brooksville 33512 Hernando | 114XXX | | | | | | 4,983 | | |
| 194 | City of Tallahassee City Hall | 0027529 ay | 581010 | 581130 | 3 | 8/82 | S.W. irr sys (EIS pending) | 6,667 | | |
| 926 | Tallahassee 32301 Leon | 052XXX | | | | | | 5,000 | | |
| 195 | City of Holly Hill 1065 Ridgewood Ave. | 0027677 ay | 620010 | 709010 | 2 | 5/83 | Exp STP, int | 220 | | |
| 925 | Holly Hill 32017 Volusia | 187001 | | | | | | 165 | | |
| 195 | City of Holly Hill Same as above | 0027677 ay | 709010 | 709020 | 3 | 2/84 | Exp STP, int | 2,200 | | |
| 925 | | 187001 | | | | | | 1,650 | | |
| 197 | City of Quincy City Hall | 0029033 ay | 641020 | 641030 | 3 | 5/81 | U/G STP | 160 | | |
| 924 | Quincy 32351 Gadsden | No Number | | | | | | 120 | | |
| 197 | Collier County Collier Co. Gov. Center | by | 597010 | 715010 | 2 | 5/83 | Exp & U/G Marco Is. STP to 1.8 mgd, PS & FM | 173 | | |
| 924 | Naples 33940 Collier | 104XXX | | | | | | 130 | | |
| 197 | Collier County Same as above | by | 715010 | 715020 | 3 | 2/84 | Exp & U/G Marco Is. STP to 1.8 mgd, PS & FM | 1,933 | | |
| 924 | | 104XXX | | | | | | 1,450 | | |
| 200 | Town of Greensboro P. O. Box 66 | cy | 551020 | 551050 | 3 | 2/82 | STP & disp fac | 200 | | |
| 923 | Greensboro 32330 Gadsden | 110001 | | | | | | 150 | | |
| 200 | City of Crestview P. O. Box 1207 | 0027782 ay | 432020 | 432050 | 3 | 2/82 | U/G STP | 500 | | |
| 923 | Crestview 32536 Okaloosa | 142001 | | | | | | 375 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Assf.-$1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 202 / 922 | City of Orlando / City Hall / Orlando 32801 Orange | cy / 037001 | 399020 | 399100 | 2 | 8/83 | Exp Orlando E. reg STP from 24 to 32 mgd | 730 / 548 | | |
| 202 / 922 | City of Orlando / Same as above | cy / 037001 | 399100 | 399110 | 3 | 3/84 | Exp Orlando E. reg STP from 24 to 32 mgd | 7,300 / 5,475 | | |
| 204 / 920 | Hillsborough County / P. O. Box 1110 / Tampa 33601 Hillsborough | 0028061 ay / 056007 | 682010 | 682020 | 2 | 10/80 | Exp S. County reg STP to 3 mgd | 238 / 179 | | |
| 204 / 920 | Hillsborough County / Same as above | 0028061 ay / 056007 | 682020 | 682030 | 3 | 2/82 | Exp S. County reg STP to 3 mgd | 2,380 / 1,790 | | |
| 204 / 920 | Hillsborough County / Same as above | 0028061 ay / 056007 | 682010 | 682040 | 2 | 10/80 | S. County eff holding pond & transmission sys | 232 / 174 | | |
| 204 / 920 | Hillsborough County / Same as above | 0028061 ay / 056007 | 682010 | 682050 | 3 | 2/82 | S. County eff holding pond & transmission sys | 2,321 / 1,741 | | |
| 204 / 920 | Hillsborough County / Same as above | 0027621 ay / 056001 | 588010 | 588130 | 3 | 2/82 | N.W. reg tpr site purchase | 11,186 / 8,390 | | |
| 209 / 919 | Broward County / 201 S E 6th St. / Ft. Lauderdale 33310 Broward | 0026255 ay / Multiple | 574560 | 574570 | 3 | 5/82 | 30 mgd exp to Hollywood STP | 29,667 / 22,250 | | |
| 210 / 918 | City of Ft. Meade / P. O. Box 856 / Ft. Meade 33841 Polk | 0020290 ay / 160001 | 606040 | 606050 | 3 | 10/80 | Exp STP | 660 / 495 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 211 | Hillsborough County<br>P. O. Box 1110<br>Tampa 33601 Hillsborough | 0029319 ay | 588010 | 588070 | 2 | 11/80 | Exp Carrollwood reg STP to 3.7 mgd | 316 | | |
| 917 | | 056001 | | | | | | 237 | | |
| 211 | Hillsborough County<br>Same as above | 0029319 ay | 588070 | 588080 | 3 | 5/82 | Exp Carrollwood reg STP to 3.7 mgd | 3,160 | | |
| 917 | | 056001 | | | | | | 2,370 | | |
| 211 | Hillsborough County<br>Same as above | 0029319 ay | 588010 | 588090 | 2 | 11/80 | Carrollwood reg irr sym | 271 | | |
| 917 | | 056001 | | | | | | 203 | | |
| 211 | Hillsborough County<br>Same as above | 0029319 ay | 588090 | 588100 | 3 | 5/82 | Carrollwood reg irr sym | 2,710 | | |
| 917 | | 056001 | | | | | | 2,033 | | |
| 215 | City of Mount Dora<br>P. O. Box 176<br>Mount Dora 32757 Lake | cy | 611010 | 706010 | 2 | 8/83 | STP, irr sym, PS & FM | 373 | | |
| 916 | | No Number | | | | | | 281 | | |
| 215 | City of Mount Dora<br>Same as above | cy | 706010 | 706020 | 3 | 2/84 | STP, irr sym, PS & FM | 5,725 | | |
| 916 | | No Number | | | | | | 4,294 | | |
| 215 | City of Mount Dora<br>Same as above | cy | 611010 | 706030 | 3 | 8/83 | Irr site purchase | 1,800 | | |
| 916 | | No Number | | | | | | 1,350 | | |
| 215 | Hillsborough County<br>Same as above | 0027821 ay | 588010 | 588050 | 2 | 11/80 | Exp River Oaks STP to 9.8 mgd | 699 | | |
| 916 | | 056001 | | | | | | 524 | | |
| 215 | Hillsborough County<br>Same as above | 0027821 ay | 588050 | 588060 | 3 | 5/82 | Exp River Oaks STP to 9.8 mgd | 6,990 | | |
| 916 | | 056001 | | | | | | 5,242 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 215 | Hillsborough County<br>P. O. Box 1110 | 0027821 sy | 588010 | 588030 | 2 | 2/81 | River Oaks irr sys | 1,733 | | |
| 916 | Tampa 33601 Hillsborough | 056001 | | | | | | 1,315 | | |
| 215 | Hillsborough County<br>Same as above | 0027821 sy | 588030 | 588040 | 3 | 8/82 | River Oaks irr sys | 17,530 | | |
| 916 | | 056001 | | | | | | 13,148 | | |
| 215 | Ft. Pierce Utilities Auth.<br>P. O. Box 3191 | 0027278 sy | 463020 | 463030 | 3 | 5/81 | Exp & U/G STP | 10,867 | | |
| 916 | Ft. Pierce 33450 St. Lucie | 173001 | | | | | | 8,150 | | |
| 223 | City of Marianna<br>P. O. Box 936 | 0020117 sy | 451020 | 451070 | 3 | 10/80 | U/G STP & SS rehab | 650 | | |
| 913 | Marianna 32446 Jackson | No Number | | | | | | 488 | | |
| 223 | ACME Improvement Dist.<br>P. O. Box 248 | cy | 701010 | 701020 | 3 | 5/81 | Exp STP, DWI disp sys | 2,000 | | |
| 913 | Loxahatchee 33470 Palm Beach | No Number | | | | | | 1,500 | | |
| 225 | City of Groveland<br>P. O. Box 26 | cy | 385020 | 385030 | 3 | 10/80 | 0.3 mgd STP & irr sys | 2,512 | | |
| 912 | Groveland 32736 Lake | No Number | | | | | | 1,884 | | |
| 225 | City of Groveland<br>Same as above | cy | 385010 | 385040 | 3 | 10/80 | Irr site purchase | 872 | | |
| 912 | | No Number | | | | | | 654 | | |
| 225 | City of Cottondale<br>P. O. Box 398 | 0030058 cy | 451010 | 678010 | 2+3 | 8/82 | STP | 340 | | |
| 912 | Cottondale 32431 Jackson | No Number | | | | | | 255 | | |
| 228 | City of Panama City<br>P. O. Box 1880 | 0020443 | 659020 | 659040 | 3 | 10/80 | U/G Millville STP, PS, FM & SS rehab | 3,004 | | |
| 911 | Panama City 32401 Bay | 089002 | | | | | | 2,253 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 228 / 911 | City of Mulberry P. O. Box 707 Mulberry 33860 Polk | 0020338 / 298001 | 601010 | 601020 | 2 | 8/82 | Exp STP | 133 / 100 | | |
| 228 / 911 | City of Mulberry Same as above | 0020338 / 298001 | 601020 | 601030 | 3 | 5/83 | Exp STP | 1,333 / 1,000 | | |
| 231 / 910 | City of Lake Alfred 120 E. Pomelo St. Lake Alfred 33850 Polk | 0021784 sy / No Number | 582010 | 719010 | 2+3 | 5/83 | U/G STP, disp sys | 864 / 648 | | |
| 231 / 910 | City of Lake Alfred Same as above | 0021784 sy / No Number | 582010 | 719020 | 3 | 2/84 | Irr site purchase | 267 / 200 | | |
| 231 / 910 | City of Haines City P. O. Box 1507 Haines City 33844 Polk | 0021318 / 162001 | 568010 | 568040 | 2 | 8/83 | U/G STP & disp sys | 45 / 34 | | |
| 231 / 910 | City of Haines City Same as above | 0021318 / 162001 | 568040 | 568050 | 3 | 2/84 | U/G STP & disp sys | 451 / 338 | | |
| 235 / 909 | City of Winter Haven P. O. Box 2277 Winter Haven 33880 Polk | 0021831 / 156XXX | 582010 | 582020 | 3 | 5/81 | Modify irr sys | 1,200 / 900 | | |
| 235 / 909 | City of Wauchula P. O. Box 818 Wauchula 33873 Hardee | 0023949 sy / No Number | NA | 624010 | 1 | 10/80 | CI — irr site study | 40 / 30 | | |
| 235 / 909 | City of Wauchula Same as above | 0023949 sy / No Number | 624030 | 624040 | 3 | 8/82 | U/G & exp STP | 2,600 / 1,950 | | |

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 235 / 909 | City of Wauchula City Hall Wauchula 33873 Hardee | 0023949 ay / No Number | 624010 | 624110 | 3 | 8/82 | Irr site purchase | 800 / 600 | | |
| 235 / 909 | City of Panama City Beach 105 Springhill Circle Panama City 32401 Bay | 0021512 / No Number | 450010 | 694010 | 2 | 8/83 | Eff disp sys | 80 / 60 | | |
| 235 / 909 | City of Panama City Beach Same as above | 0021512 / No Number | 694010 | 694020 | 3 | 2/84 | Eff disp sys | 800 / 600 | | |
| 235 / 909 | City of Lynn Haven 825 Ohio Ave. Lynn Haven 3244 Bay | 0027804 ay / No Number | 450010 | 746020 | 2 | 8/81 | Modify spray irr sys | 500 / 375 | | |
| 235 / 909 | City of Lynn Haven Same as above | 0027804 ay / No Number | 746020 | 746030 | 3 | 8/82 | Modify spray irr sys | 6,250 / 4,688 | | |
| 243 / 908 | Town of Mexico Beach P. O. Box 13425 Mexico Beach 32410 Bay | cy / No Number | 545010 | 545080 | 2+3 | 11/83 | Int to Port St. Joe STP | 850 / 638 | | |
| 243 / 908 | City of Lake Butler Union County Courthouse Lake Butler 32054 Union | 0028428 ay / No Number | 630010 | 630020 | 2 | 8/83 | U/G STP | 84 / 63 | | |
| 243 / 908 | City of Lake Butler Same as above | 0028428 ay / No Number | 630020 | 630030 | 3 | 2/84 | U/G STP | 840 / 630 | | |
| 246 / 907 | City of Williston P. O. Drawer 160 Williston 32696 Levy | 0025127 ay / 127001 | 649020 | 649030 | 3 | 5/81 | U/G STP, irr sys | 1,191 / 893 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 246 / 907 | City of Williston<br>P. O. Drawer 160<br>Williston 32696 Levy | 0025127 ay<br>127001 | 649010 | 649040 | 3 | 10/80 | Irr site purchase | 189<br>142 | | |
| 246 / 907 | Polk County<br>P. O. Box 186<br>Auburndale 33823 Polk | 0021466 ay<br>155001 | 582010 | 339080 | 2 | 8/83 | Auburndale int to Winter Haven | 175<br>131 | | |
| 246 / 907 | Polk County<br>Same as above | 0021466<br>155001 | 339080 | 339090 | 3 | 5/84 | Auburndale int to Winter Haven | 1,751<br>1,313 | | |
| 250 / 906 | Charlotte/Punta Gorda<br>116 W. Olympia Ave.<br>Punta Gorda 33950 Charlotte | 0021148 ay<br>No Number | 628010 | 711030 | 2 | 8/81 | 2 mgd STP & irr fac | 493<br>370 | | |
| 250 / 906 | Charlotte/Punta Gorda<br>Same as above | 0021148 ay<br>No Number | 711030 | 711040 | 3 | 8/82 | 2 mgd STP & irr fac | 3,285<br>2,464 | | |
| 250 / 906 | Charlotte/Punta Gorda<br>Same as above | 0021148 ay<br>No Number | 628010 | 711050 | 3 | 11/81 | Irr site purchase | 1,300<br>975 | | |
| 253 / 905 | City of St. Augustine<br>P. O. Drawer 210<br>St. Augustine 32084 St. Johns | 0021938 ay<br>172XXX | 664010 | 664040 | 2+3 | 5/83 | U/C STP | 500<br>375 | | |
| 253 / 905 | City of Live Oak<br>P. O. Box 1506<br>Live Oak 32060 Suwannee | 0020214 ay<br>181001 | 662010 | 662020 | 2 | 8/81 | U/C & Exp STP, irr sys | 300<br>225 | | |
| 253 / 905 | City of Live Oak<br>P. O. Box 1506<br>Live Oak 32060 Suwannee | 0020214 ay<br>181001 | 662020 | 662030 | 3 | 8/82 | U/C & Exp STP, irr sys | 4,100<br>3,075 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Cost-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 256 / 904 | City of Waldo<br>Drawer B<br>Waldo 32694 Alachua | 0021679 sy<br>009001 | 497010 | 744010 | 2+3 | 10/80 | STP, eff disp fac, SSES & SS rehab | 461 | | |
| 256 / 904 | City of Venice<br>401 W. Venice Ave.<br>Venice 33595 Sarasota | 0020508<br>175001 | 661010 | 661020 | 3 | 10/80 | Exp spray irr sys | 346<br>990 | | |
| 256 / 904 | Santa Rosa County<br>P. O. Box 472<br>Milton 32570 Santa Rosa | cy<br>No Number | 589010 | 687050 | 2 | 10/80 | Pace 1.5 mgd STP & irr sys | 743<br>624 | | |
| 256 / 904 | Santa Rosa County<br>Same as above | cy<br>No Number | 687050 | 687060 | 3 | 8/82 | Pace 1.5 mgd STP & irr sys | 468<br>4,803 | | |
| 256 / 904 | Santa Rosa County<br>Same as above | cy<br>No Number | 589010 | 687090 | 3 | 5/82 | Pace irr site purchase | 3,602<br>820 | | |
| 256 / 904 | City of Kissimmee<br>P. O. Box 340<br>Kissimmee 32741 Osceola | 0032859 sy<br>No Number | 509010 | 509020 | 2 | 11/83 | STP, eff disp, int | 615<br>1,727 | | |
| 256 / 904 | City of Kissimmee<br>Same as above | 0032859 sy<br>No Number | 509020 | 508030 | 3 | 11/84 | STP, eff, disp, int | 1,295<br>17,268 | | |
| 256 / 904 | City of Hollywood<br>P. O. Box 2207<br>Hollywood 33022 Broward | 0026255 sy<br>001FXX | 574010 | 594020 | 3 | 11/84 | Eff PW & outfall ext | 12,951<br>1,477 | | |
| 264 / 903 | City of Naples<br>735 8th St., South<br>Naples 33940 Collier | 0026271 sy<br>103001 | 597010 | 713010 | 2 | 9/81 | I/C STP & exp to 8.6 mgd | 1,108<br>645<br>484 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grants Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Eligl. Cost-$1000's / Est. EPA Asst.-$1000's | Conv.Eligl. Cost-$1000's / Altern.Eligl. Cost-$1000's | Step 3 & 2 + 3 Eligl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 266 / 903 | City of Naples<br>735 8th St. South<br>Naples 33940 Collier | 0026271 ay<br>183001 | 713010 | 713030 | 3 | 8/83 | O/G STP & exp to 8.6 mgd | 8,000<br>6,000 | | |
| 266 / 902 | Orange County<br>P. O. Box 1393<br>Orlando 32802 Orange | 0022110 ay<br>058001 | NA | 692010 | 1 | 9/81 | SW fac plan | 800<br>600 | | |
| 267 / 901 | City of Bartow<br>250 North Central Avenue<br>Bartow 33830 Polk | 0026026 ay<br>154001 | 598010 | 598080 | 2 | 11/80 | Eff PS & FM to phosphate mine | 36<br>27 | | |
| 267 / 901 | City of Bartow<br>Same as above | 0026026 ay<br>154001 | 598080 | 598090 | 3 | 9/81 | Eff PS & FM to phosphate mine | 400<br>300 | | |
| 267 / 901 | City of Bartow<br>Same as above | 0026026 ay<br>154001 | 598060 | 598070 | 3 | 10/80 | O/G STP | 2,000<br>1,500 | | |
| 267 / 901 | City of Apalachicola<br>City Hall<br>Apalachicola 32320 Franklin | 0021971 ay<br>168001 | 427020 | 427040 | 3 | 10/80 | STP & eff disp sys | 1,437<br>1,078 | | |
| 267 / 901 | City of Apalachicola<br>same as above | 0021971 ay<br>108000 | 427010 | 427060 | 3 | 5/81 | Irr site purchase | 300<br>225 | | |
| 272 / 897 | City of Monticello<br>P. O. Box 533<br>Monticello 32344 Jefferson | 0027839 ay<br>119001 | 644010 | 644020 | 2+3 | 11/82 | O/G STP | 950<br>713 | | |
| 272 / 897 | City of LaBelle<br>P. O. Box 458<br>LaBelle 33935 Hendry | 0028967 ay<br>113001 | 519010 | 519020 | 2+3 | 10/80 | Exp STP, irr sys | 1,524<br>1,143 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code; County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst: $1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 274 / 895 | Okeechobee County<br>Rm. 106 County Courthouse<br>Okeechobee 33472 Okeechobee | 0027626 ay<br>No Number | 615020 | 615030 | 3 | 10/80 | 0.6 mgd STP, irr sym, ints, & FMs | 4,445 | | |
| 274 / 895 | City of Ocala<br>P. O. Box 1270<br>Ocala 32670 Marion | cy<br>133003 | 621010 | 621020 | 2 | 8/83 | STP, irr sym & ints | 3,334<br>1,938 | | |
| 274 / 895 | City of Ocala<br>Same as above | cy<br>133003 | 621020 | 621030 | 3 | 5/84 | STP, irr sym | 1,454<br>18,732 | | |
| 274 / 895 | City of Ocala<br>Same as above | cy<br>133003 | 621010 | 621040 | 3 | 8/83 | Irr site purchase | 14,049<br>1,932 | | |
| 278 / 894 | City of Crystal River<br>123 Northwest Highway 19<br>Crystal River 32629 Citrus | 0028371 ay | 583020 | 583030 | 3 | 10/80 | Exp & U/G STP to 0.75 mgd | 1,449<br>964 | | |
| 278 / 894 | City of Belle Glade<br>110 S.W. Ave. E<br>Belle Glade 33430 Palm Beach | 0027740 ay<br>085001 | 724010 | 724020 | 3 | 5/81 | Exp STP | 723<br>1,375 | | |
| 280 / 893 | City of Graceville<br>P. O. Box 636<br>Graceville 32440 Jackson | 0021539<br>No Number | 550010 | 550020 | 2 | 10/80 | U/G & exp STP | 1,031<br>75 | | |
| 280 / 893 | City of Graceville<br>Same as above | 0021539<br>No Number | 550020 | 550030 | 3 | 5/83 | U/G & exp STP | 56<br>671 | | |
| 280 / 893 | City of Carrabelle<br>P. O. Drawer 569<br>Carrabelle 32322 Franklin | 0026808 ay<br>No Number | 549040 | 549050 | 3 | 5/83 | 0.2 mgd STP & SS rehab | 503<br>504<br>378 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asgt.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 283 | Town of Zolfo Springs | cy | 624010 | 690010 | 2 | 2/84 | STP & disp sys | 71 | | |
| 892 | P. O. Box 162<br>Zolfo Springs 33890 Hardee | No Number | | | | | | 53 | | |
| 283 | Town of Zolfo Springs | cy | 690010 | 690020 | 3 | 11/84 | STP & disp sys | 711 | | |
| 892 | Same as above | No Number | | | | | | 533 | | |
| 283 | Town of Zolfo Springs | cy | 624010 | 690030 | 3 | 5/84 | Irr site purchase | 175 | | |
| 892 | Same as above | No Number | | | | | | 131 | | |
| 283 | City of Bowling Green | 0027316 | 624010 | 683010 | 2 | 2/84 | U/G & exp STP; disp sys | 45 | | |
| 892 | P. O. Box 608<br>Bowling Green 33834 Hardee | No Number | | | | | | 34 | | |
| 283 | City of Bowling Green | 0027316 | 683010 | 683020 | 3 | 11/84 | U/G & exp STP; disp sys | 452 | | |
| 892 | Same as above | No Number | | | | | | 339 | | |
| 283 | City of Bowling Green | 0027316 | 624010 | 683010 | 3 | 5/84 | Irr site purchase | 141 | | |
| 892 | Same as above | No Number | | | | | | 106 | | |
| 289 | City of Titusville | 0020389 cy | 579010 | 689010 | 2 | 10/80 | U/G & exp STP, disp fac | 1,571 | | |
| 891 | P. O. Box Y<br>Titusville 32789 Brevard | 097001 | | | | | | 1,178 | | |
| 289 | City of Titusville | 0020389 cy | 689010 | 689020 | 3 | 10/83 | U/G & exp STP, disp fac | 15,710 | | |
| 891 | Same as above | 097001 | | | | | | 11,783 | | |
| 289 | City of DeFuniak Springs | 0021580 sy | 425040 | 425050 | 3 | 10/80 | Exp & U/G STP | 821 | | |
| 891 | P. O. Box 287<br>DeFuniak Springs 32433 Walton | No Number | | | | | | 616 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 289 / 991 | City of DeFuniak Springs P. O. Box 287 DeFuniak Springs 32433 Walton | 0021580 cy / No Number | 425060 | 425070 | 3 | 10/80 | Exp & U/G master LS | 169 | | |
| 289 / 891 | Collier County Collier Co. Govern. Center Naples 33940 Collier | cy / 104XXX | 597010 | 712010 | 2 | 2/84 | Exp & U/G Dist. & STP to 3 mgd, PS & FM | 127 / 200 | | |
| 289 / 891 | Collier County Same as above | cy / 104XXX | 712010 | 712020 | 3 | 2/85 | Exp & U/G Dist. & STP to 3 mgd, PS & FM | 150 / 2,300 | | |
| 289 / 891 | Collier County Same as above | cy / 104XXX | 597010 | 714010 | 2 | 2/84 | Exp Lely STP to 1.6 mgd, PS & FM | 1,725 / 320 | | |
| 289 / 891 | Collier County Same as above | cy / 104XXX | 714010 | 714020 | 3 | 2/85 | Exp Lely STP to 1.6 mgd, PS & FM | 240 / 3,680 | | |
| 289 / 891 | City of Bonifay P. O. Box 206 Bonifay 32425 Holmes | 0027731 / No Number | 452010 | 452020 | 2 | 10/80 | U/G & exp STP, SS rehab | 2,760 / 120 | | |
| 289 / 891 | City of Bonifay Same as above | 0027731 / No Number | 452020 | 452030 | 3 | 11/82 | U/G & exp STP, SS rehab | 90 / 515 | | |
| 289 / 891 | City of Blountstown 125 West Central Ave. Blountstown 32424 Calhoun | 0026867 cy / 100001 | 548040 | 548050 | 3 | 10/80 | U/G & exp STP | 386 / 200 | | |
| 300 / 890 | Collier County Same as above | by / 104XXX | 597010 | 716010 | 2 | 2/84 | Exp & U/G Golden Gate STP to 0.6 mgd, PS & FM | 150 / 137 / 183 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FN / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Eligl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Eligl. Cost-$1000's / Altern.Eligl. Cost-$1000's | Step 3 & 2 + 3 Eligl. Costs by Category - $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 300 / 890 | Collier County<br>Collier Co. Govern. Center<br>Naples 33940 Collier | by<br>104XXX | 716010 | 716020 | 3 | 2/85 | Exp & U/G Golden Gate STP to 0.g mgd, PS & FM | 1,573<br>1,180 | | |
| 302 / 889 | City of Jacksonville Beach<br>11 North Third St.<br>Jacksonville B. 32250 Duval | 0020231 ay<br>013001 | 614010 | 614040 | 2 | 8/82 | Reg STP, disp fac, & inte | 1,542<br>1,157 | | |
| 302 / 889 | City of Jacksonville Beach<br>same | 0020231 ay<br>013001 | 614040 | 614050 | 3 | 8/83 | Reg STP & disp fac | 11,599<br>8,699 | | |
| 304 / 885 | City of Green Cove Springs<br>229 Walnut St.<br>Green Cove Springs 32043 Clay | 0020915 ay<br>102001 | 679020 | 679030 | 3 | 8/81 | Exp STP to 1.1 mgd | 1,435<br>1,076 | | |
| 304 / 885 | City of Clewiston<br>P. O. Box 698<br>Clewiston 33440 Hendry | 0021920<br>No Number | 663020 | 663030 | 3 | 10/80 | Phase I — STP, disp fac, FMe & PSe | 1,080<br>810 | | |
| 306 / 880 | City of Cross City<br>P. O. Box 417<br>Cross City 32628 Dixie | 0027791 ay<br>No Number | 616010 | 616020 | 2 | 10/83 | 0.15 mgd retention pond | 3<br>2 | | |
| 306 / 880 | City of Cross City<br>same | 0027791 ay<br>No Number | 616020 | 616030 | 3 | 9/84 | 0.15 mgd retention pond | 20<br>15 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov.Elgbl. Cost-$1000's / Alterm.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 308 / 878 | City of Everglades City P. O. Drawer C Everglades | 0027618 ay | NA | 748010 | 1 | 9/81 | Fac plan | 40 | | |
| 309 / 877 | City of Fernandina Beach P. O. Box 668 Fernandina Beach 32034 Nassau | 0027260 ay / 137001 | 673010 | 673020 | 2 | 9/81 | 3 mgd STP | 30 / 573 | | |
| 309 / 877 | City of Fernandina Beach Same as above | 0027260 ay / 137001 | 673020 | 673030 | 3 | 10/82 | 3 mgd STP | 430 / 5,729 | | |
| 311 / 875 | Brevard County 2575 N. Courtenay Parkway Merritt Island 32952 Brevard | 0026735 ay / 099010 | 579020 | 579040 | 3 | 5/83 | I/I Melbourne Beach STP | 4,297 / 433 | | |
| 312 / 873 | Brevard County Same as above | 0026816 ay / 099007 | 579010 | 579050 | 2 | 11/83 | Merritt Is. STP, irr SS rehab & int | 340 / 2,835 | | |
| 312 / 873 | Brevard County Same as above | 0026816 / 099007 | 579050 | 579060 | 3 | 11/84 | Merritt Is. STP, irr, SS rehab & int | 2,126 / 28,351 | | |
| 314 / 871 | South Flomaton P. O. Drawer 1591 Pensacola 32597 Escambia | cy / No Number | 441010 | 441030 | 2 | 10/80 | STP | 21,263 / 32 | | |
| 314 / 871 | South Flomaton Same as above | cy / No Number | 441030 | 441020 | 3 | 5/81 | STP | 24 / 350 | | |
| 316 / 859 | Boynton/Delray 100 N.W. 1st Ave. Delray Beach 33444 Palm B. Co. | by / Multiple | 623010 | 406020 | 2 | 8/83 | Exp reg STP to 24 mgd | 263 / 900 / 675 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant: Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 316 / 859 | Boynton/Delray<br>100 N.W. 1st Ave.<br>Delray Beach 33444 Palm B. Co. | by<br>Multiple | 406020 | 406030 | 3 | 8/84 | Exp reg STP to 24 mgd | 10,000<br>7,500 | | |
| 318 / 591 | Pinellas County<br>315 Haven St.<br>Clearwater 33528 Pinellas | 0021059 ay<br>076XXX | 622010 | 622030 | 2 | 2/84 | Int -- Safety Harbor STP to Clearwater NE STP | 133<br>100 | | |
| 318 / 591 | Pinellas County<br>Same as above | 0021059<br>076XXX | 622030 | 622090 | 3 | 9/84 | Int -- Safety Harbor STP to Clearwater NE STP | 1,333<br>1,000 | | |
| 318 / 591 | City of Orlando<br>400 S. Orange Ave.<br>Orlando 38201 Orange | 0030813 ay<br>037001 | 399080 | 399090 | 3 | 10/80 | S.E. int sys to E. Reg STP | 21,500<br>16,125 | | |
| 321 / 585 | Pinellas County<br>Same as above | 0025003<br>076XXX | 622010 | 622060 | 2 | 10/80 | Boca Ciega diversion | 200<br>150 | | |
| 321 / 585 | Pinellas County<br>Same as above | 0025003<br>076XXX | 622060 | 622080 | 3 | 8/81 | Boca Ciega diversion PM & PS | 1,800<br>1,350 | | |
| 323 / 584 | Pinellas County<br>Same as above | cy<br>076XXX | 622010 | 622110 | 2 | 10/83 | Ridgecrest diversion to McKay Cr. STP | 51<br>38 | | |
| 323 / 584 | Pinellas County<br>Same as above | cy<br>076XXX | 622110 | 622120 | 3 | 9/84 | Ridgecrest diversion to McKay Cr. STP | 1,700<br>1,275 | | |
| 323 / 584 | City of Clearwater<br>P. O. Box 4748<br>Clearwater 33518 Pinellas | 0021865<br>065XXX | 461010 | 461060 | 2 | 10/80 | Alligator Cr. PS & PM | 60<br>45 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 19[illegible]

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|---|---|---|---|---|---|---|---|---|---|---|
| 323 / 584 | City of Clearwater<br>P. O. Box 4748<br>Clearwater 33518 Pinellas | 0021865<br>065XXX | 461060 | 461070 | 3 | 10/82 | Alligator Cr PS & FM | 650<br>450 | | |
| 327 / 583 | Pinellas County<br>315 Haven St.<br>Clearwater 33516 Pinellas | 0025003 ay<br>076001 | 622010 | 622130 | 2 | 9/81 | South Cross Bayou eff filters, FM & PS | 140<br>105 | | |
| 327 / 583 | Pinellas County<br>Same as above | 0025003 ay<br>076001 | 622130 | 622140 | 3 | 10/82 | South Cross Bayou eff filters, FM & PS | 1,260<br>945 | | |
| 329 / 582 | City of Tarpon Springs<br>P. O. Box 1575<br>Tarpon Springs 33589 Pinellas | 0030406 ay<br>075001 | 592010 | 688050 | 2 | 5/84 | U/G PS & FM | 525<br>394 | | |
| 329 / 582 | City of Tarpon Springs<br>Same as above | 0030406 ay<br>075001 | 688050 | 688060 | 3 | 2/85 | U/G PS & FM | 5,231<br>3,938 | | |
| 329 / 582 | City of Tarpon Springs<br>Same as above | 0030406<br>075001 | 592010 | 688070 | 2 | 5/84 | PS, FM retention site | 75<br>56 | | |
| 329 / 582 | City of Tarpon Springs<br>Same as above | 0030406<br>075001 | 688070 | 688080 | 3 | 2/85 | PS, FM, retention site | 749<br>562 | | |
| 329 / 582 | Pinellas County<br>Same as above | cy<br>076XXX | 622010 | 622050 | 2 | 5/84 | Boca Ciega transmission FM & PS | 440<br>330 | | |
| 329 / 582 | Pinellas County<br>Same as above | cy<br>076XXX | 622050 | 622070 | 3 | 2/85 | Boca Ciega transmission FM & PS | 4,400<br>3,380 | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| 329 | City of Dunedin | cy | 622010 | 721030 | 2 | 5/84 | FM, int & int ext | 108 | | |
| 562 | 750 Milwaukee Ave. Dunedin 33528 Pinellas | 066XXX | | | | | | 81 | | |
| 329 | City of Dunedin | cy | 721030 | 721040 | 3 | 2/85 | FM, int & int ext | 1,081 | | |
| 562 | Same as above | 066XXX | | | | | | 811 | | |
| 337 | Pinellas County | cy | 622010 | 622040 | 2 | 5/84 | Indian Rocks Beach int to McKay Cr. STP | 107 | | |
| 561 | 315 Maven St. Clearwater 33518 Pinellas | 076XXX | | | | | | 80 | | |
| 337 | Pinellas County | cy | 622040 | 622100 | 3 | 2/85 | Indian Rocks Beach int to McKay Cr. STP | 1,070 | | |
| 561 | Same as above | 076XXX | | | | | | 800 | | |
| 337 | City of Tarpon Springs | 0030406 | 592010 | 688030 | 2 | 5/84 | PS & FM | 27 | | |
| 560 | P. O. Box 1575 Tarpon Springs 33589 Pinellas | 075001 | | | | | | 20 | | |
| 337 | City of Tarpon Springs | 0030406 | 688030 | 688040 | 3 | 2/85 | PS & FM | 260 | | |
| 560 | Same as above | 075001 | | | | | | 195 | | |
| 337 | City of Oldsmar | 0027651 cy | 592010 | 669010 | 2 | 5/84 | E. Lake Woodlands PS & int. | 100 | | |
| 560 | P. O. Box 100 Oldsmar 33557 Pinellas | 074001 | | | | | | 75 | | |
| 337 | City of Oldsmar | 0027651 cy | 669010 | 669040 | 3 | 2/85 | E. Lake Woodlands PS & int | 1,000 | | |
| 560 | P. O. Box 100 Oldsmar 33557 Pinellas | 074001 | | | | | | 750 | | |
| 337 | City of Ft. Lauderdale | 0020311 sy | 474290 | 474300 | 3 | 8/81 | Convert 6th St. STP to master PS | 2,931 | | |
| 560 | P. O. Drawer 14250 Ft. Lauderdale 33302 Broward | 001017 | | | | | | 2,198 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 19[illegible]

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|---|---|---|---|---|---|---|---|---|---|---|
| 344 / 574 | Miami-Dade Water Sewer Auth. P. O. Box 330316 Miami 33133 Dade | 0024805 / 017XXX | 429080 | 429090 | 3 | 10/80 | Int C-2 | 3,000 / 2,900 | | |
| 344 / 574 | Miami-Dade Water Sewer Auth. Same as above | 0024805 / 017XXX | 429100 | 429110 | 3 | 10/80 | Int C-5 | 2,907 / 2,180 | | |
| 346 / 573 | Miami-Dade Water Sewer Auth. Same as above | 0024805 / 017XXX | 377010 | 429160 | 2 | 5/84 | Ints C-3 & C-4 | 379 / 284 | | |
| 346 / 573 | Miami-Dade Water Sewer Auth. Same as above | 0024805 / 017XXX | 429160 | 429170 | 3 | 2/85 | Ints C-3 & C-4 | 3,731 / 2,813 | | |
| 348 / 570 | City of St. Petersburg P. O. Box 2842 St. Petersburg 33731 Pinellas | cy / 073002 | 523070 | 523080 | 3 | 10/80 | N.E. unincorporated area int sys | 5,844 / 4,383 | | |
| 349 / 568 | City of St. Petersburg Same as above | cy / 073001 | 631010 | 631020 | 2 | 5/84 | Tierra Verde transmission sys to SW STP | 128 / 96 | | |
| 349 / 568 | City of St. Petersburg Same as above | cy / 073001 | 631020 | 631030 | 3 | 2/85 | Tierra Verde transmission sys to SW STP | 1,333 / 1,000 | | |
| 351 / 566 | Florosa Water & Sewer Dist. 610 Skylark Road Mary Ester 32569 Okaloosa | cy / No Number | 702010 | 702020 | 3 | 8/81 | Int SSI & PS SSI to reg STP | 1,120 / 840 | | |
| 352 / 565 | Okaloosa County P. O. Box 815 Shalimar 32579 Okaloosa | cy / No Number | 644070 | 644080 | 3 | 10/80 | SS rehab | 528 / 396 | | |

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EFFECTIVE October 1, 1979

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|---|---|---|---|---|---|---|---|---|---|---|
| 352 / 565 | City of Ft. Walton Beach<br>P. O. Box 1449<br>Ft. Walton B. 32548 Okaloosa | 0021075 ay<br>141XXX | 284010 | 284080 | 2+3 | 10/80 | SS rehab | 350<br>263 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>P. O. Box 330316<br>Miami 33133 Dade | 0024805<br>017XXX | 377010 | 429060 | 2 | 10/80 | Cent. Dist. SSES | 1,080<br>810 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | 0024805<br>017XXX | 429060 | 429070 | 3 | 10/83 | Cent. Dist. SS rehab | 11,312<br>8,484 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | 0032180<br>017XXX | 377040 | 375280 | 2 | 10/80 | N. Dist. SS rehab | 200<br>150 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | 0032180<br>017XXX | 375280 | 375210 | 3 | 10/83 | N. Dist. SS rehab | 2,355<br>1,766 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | 0024805<br>017XXX | 377010 | 429140 | 2 | 10/80 | Cent. Dist. FM E-CM | 20<br>15 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | 0024805<br>017XXX | 429140 | 429150 | 3 | 10/83 | Cent. Dist. FM E-CM | 165<br>124 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | cy<br>017XXX | 377010 | 375260 | 2 | 5/84 | FMs H-19 & 20; PSs SP2 & 11P1; serve unincorporated areas. | 203<br>152 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth.<br>Same as above | cy<br>017XXX | 375260 | 375270 | 3 | 2/85 | FMs H-19 & 20; PSs SP2 & 11P1; serve unincorporated areas. | 1,824<br>1,368 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 354 / 557 | Miami-Dade Water Sewer Auth. P. O. Box 330316 Miami 33133 Dade | cy / 017XXX | 377010 | 375240 | 2 | 8/84 | FM N-18; PSe 5P1 & 8P 4B; serves unincorporated area | 324 / 243 | | |
| 354 / 557 | Miami-Dade Water Sewer Auth. Same as above | cy / 017XXX | 375240 | 375250 | 3 | 5/85 | FM N-18; PSe 5P1 & 8P 4B; serve unincorporated area | 2,915 / 2,186 | | |
| 364 / 556 | Miami-Dade Water Sewer Auth. Same as above | cy / 017XXX | 377130 | 377140 | 3 | 10/80 | Ints S-20 & S-21 | 5,100 / 3,820 | | |
| 365 / 551 | Miami-Dade Water Sewer Auth. Same as above | cy / 017XXX | 377120 | 377150 | 3 | 10/80 | S. Dist. PS 31 P1 | 400 / 300 | | |
| 366 / 550 | City of Homestead 790 Homestead Blvd Homestead 33030 Dade | 0020893 / 017013 | 657010 | 657020 | 3 | 10/80 | Phase I PS & int sys | 3,379 / 2,534 | | |
| 367 / 548 | Miami-Dade Water Sewer Auth. Same as above | cy / 017XXX | 377010 | 377180 | 2 | 8/84 | Ints S-22 & S-23 | 493 / 370 | | |
| 367 / 548 | Miami-Dade Water Sewer Auth. Same as above | cy / 017XXX | 377180 | 377190 | 3 | 5/85 | Ints S-22 & S-23 | 4,435 / 3,326 | | |
| 367 / 548 | Miami-Dade Water Sewer Auth. Same as above | by / 017XXX | 377010 | 377200 | 2 | 8/84 | Ints & PSs: S-24, 104-P, S-25, 33-P, S-26, E-30P | 884 / 663 | | |
| 367 / 548 | Miami-Dade Water Sewer Auth. Same as above | by / 017XXX | 377200 | 377210 | 3 | 5/85 | Ints & PSs: S-24, 104-P, S-25, 33-P, S-26, E-30P | 8,753 / 6,565 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 371 | City of Homestead | 0020893 | 657050 | 657060 | 3 | 8/81 | Phase II PS & Int — greater Homestead area | 2,627 | | |
| 546 | 790 Homestead Blvd Homestead 33030 Dade | 017013 | | | | | | 1,970 | | |
| 372 | City of Key West | 0025976 ay | 465020 | 465050 | 3 | 10/80 | Rehab areas A, B, & C, LS C & Emma St. PM | 8,500 | | |
| 545 | P. O. Box 1550 Key West 33040 Monroe | 135001 | | | | | | 6,375 | | |
| 373 | City of Tampa | 0020940 cy | 634010 | 473180 | 2 | 8/83 | Replace W. River int | 200 | | |
| 543 | City Hall Tampa 33602 Hillsborough | 053001 | | | | | | 150 | | |
| 373 | City of Tampa | 0020940 cy | 473180 | 473300 | 3 | 5/84 | Replace W. River int | 3,000 | | |
| 543 | Same as above | 053001 | | | | | | 2,250 | | |
| 375 | Miami-Dade Water Sewer Auth. | 0031089 ay | 377010 | 377160 | 2 | 10/80 | Ints & PSs: S-9, 103-P, S-10, 101-P, S-11, 202-P, S-12 | 723 | | |
| 542 | P. O. Box 330316 Miami 33133 Dade | 017XXX | | | | | | 542 | | |
| 375 | Miami-Dade Water Sewer Auth. | 0031089 ay | 377160 | 377170 | 3 | 10/83 | Ints & PSs: S-9, 103-P, S-10, 101-P, S-11, 202-P, S-12 | 6,507 | | |
| 542 | Same as above | 017XXX | | | | | | 4,880 | | |
| 377 | Miami-Dade Water Sewer Auth. | cy | 377010 | 377060 | 2 | 10/80 | S. Dist. SSES | 28 | | |
| 540 | Same as above | 017XXX | | | | | | 21 | | |
| 377 | Miami-Dade Water Sewer Auth. | cy | 377060 | 377110 | 3 | 10/83 | S. Dist. SS rehab | 308 | | |
| 540 | Same as above | 017XXX | | | | | | 231 | | |
| 377 | City of Homestead | 0020893 | 657030 | 657040 | 2 | 10/80 | SS rehab | 100 | | |
| 540 | Same as above | 017013 | | | | | | 75 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project, Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 377 / 540 | City of Homestead 790 Homestead Blvd Homestead 33030 Dade | 0020893 / 017013 | 657040 | 657040 | 3 | 10/83 | SS rehab | 1,123 / 842 | | |
| 377 / 540 | Broward County 201 S. E. 6th St. Ft. Lauderdale 33301 Broward | 0034452 ap / 001XXX | 574010 | 574550 | 3 | 10/80 | Int, FM & PS for service area No. 24 | 1,525 / 1,144 | | |
| 377 / 540 | Broward County Same as above | 0031771 / 001XXX | 574290 | 574610 | 2 | 10/80 | N. Dist. SS rehab | 700 / 525 | | |
| 377 / 540 | Broward County Same as above | 0031771 / 001XXX | 574610 | 574340 | 3 | 10/83 | N. Dist. SS rehab | 14,000 / 10,500 | | |
| 384 / 536 | Orange County 400 S. Orange Ave. Orlando 3820 Orange | cy / 037XXX | 399020 | 740010 | 2 | 10/80 | E. Orange Co. int to Orlando E. STP | 396 / 297 | | |
| 384 / 536 | Orange County Same as above | cy / 037XXX | 740010 | 740020 | 3 | 9/81 | E. Orange Co. int to Orlando E. STP | 5,000 / 3,750 | | |
| 386 / 534 | City of Jacksonville 220 E. Bay St. Jacksonville 32202 Duval | 0026123 ay / 016002 | 543060 | 543070 | 3 | 8/81 | San Mateo & Oceanway PS & gravity lines | 4,100 / 3,075 | | |
| 387 / 533 | City of Sanford City Hall Sanford 32771 Seminole | 0020141 ay / 042001 | 586010 | 586040 | 2 | 10/84 | Storm sewer separation fac | 176 / 132 | | |
| 387 / 533 | City of Sanford Same as above | 0020141 ay / 042001 | 586040 | 586050 | 3 | 5/85 | Storm sewer separation fac | 3,000 / 2,250 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 & 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 387 / 533 | Pasco County P. O. Drawer 609 Port Richey 33568 Pasco | 0020273 sy / 153001 | 520020 | 520050 | 3 | 2/85 | N.E. int | 1,063 / 797 | | |
| 387 / 533 | City of Jacksonville 220 E. Bay St. Jacksonville 32202 Duval | 0026468 cy / 016005 | 490100 | 490110 | 3 | 2/85 | Ext. S.W. transmission lines | 20,000 / 15,000 | | |
| 391 / 532 | Sarasota County P. O. Box 1058 Sarasota 33578 Sarasota | 0025755 sy / 177XXX | 587010 | 587100 | 2 | 10/84 | PSs, FMs & ints to N. County STP | 51 / 38 | | |
| 391 / 532 | Sarasota County Same as above | 0025755 sy / 177XXX | 587100 | 587110 | 3 | 5/85 | PSs, FMs & ints to N. County STP | 9,640 / 7,230 | | |
| 391 / 532 | City of Jacksonville Same as above | 0023779 sy / 016003 | 541100 | 541110 | 3 | 11/82 | Ext Arlington transmission lines | 7,600 / 5,700 | | |
| 394 / 531 | City of Milton P. O. Box 312 Milton 32570 Santa Rosa | cy / 050001 | 625020 | 625050 | 3 | 11/82 | Ints | 216 / 162 | | |
| 394 / 531 | City of Milton Same as above | 0021903 sy / 050001 | 625020 | 625040 | 3 | 11/82 | SS rehab | 179 / 134 | | |
| 394 / 531 | City of Jacksonville Same as above | 0026123 sy / 016002 | 543080 | 543090 | 3 | 8/81 | San Mateo gravity line | 3,500 / 2,625 | | |
| 394 / 531 | City of Arcadia P. O. Box 351 Arcadia 33821 DeSoto | 0027511 sy / 107001 | 680010 | 680020 | 2+3 | 2/85 | SS rehab | 1,333 / 1,000 | | |

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 398 / 530 | Sarasota County<br>P. O. Box 1058<br>Sarasota 33578 Sarasota | 0023931 ay<br>177XXX | 587020 | 587050 | 3 | 2/83 | PS & int N. of 17th Street to City STP | 715 | | |
| 398 / 530 | City of Eustis<br>P. O. Drawer 68<br>Eustis 32726 Lake | 0021776<br>121001 | 611010 | 507040 | 2+3 | 10/80 | SS rehab | 536<br>150 | | |
| 400 / 529 | City of Tampa<br>City Hall<br>Tampa 33601 Hillsborough | 0020940 cy<br>053001 | 634010 | 473280 | 2 | 10/84 | U/G Krause St. PS | 113<br>60 | | |
| 400 / 529 | City of Tampa<br>Same as above | 0020940 cy<br>053001 | 473280 | 473290 | 3 | 5/85 | U/G Krause St. PS | 45<br>560 | | |
| 400 / 529 | City of Jacksonville<br>220 E. Bay St.<br>Jacksonville 32202 Duval | 0026719 ay<br>016005 | 490120 | 490130 | 3 | 11/82 | Oakhill PM | 420<br>1,500 | | |
| 400 / 529 | City of Jacksonville<br>Same as above | 0023779 ay<br>016003 | 541080 | 541090 | 3 | 11/82 | Ft. Caroline PS & FM | 1,200<br>3,200 | | |
| 404 / 528 | City of Lakeland<br>City Hall<br>Lakeland 33802 Polk | cy<br>157001 | 608010 | 410020 | 2 | 10/84 | Int | 2,400<br>1,240 | | |
| 404 / 528 | City of Lakeland<br>Same as above | cy<br>157001 | 410020 | 410040 | 3 | 5/85 | Int | 930<br>12,227 | | |
| 406 / 528 | City of Jacksonville<br>Same as above | 0026000 ay<br>016001 | 591010 | 480090 | 2 | 10/84 | Core Dist SS rehab | 9,170<br>200<br>150 | | |

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CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category - $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 406 | City of Jacksonville | 0026000 | 480090 | 480100 | 3 | 5/85 | Core Dist. SS rehab | 2,000 | | |
| 528 | 220 E. Bay St. Jacksonville 32202 Duval | 016001 | | | | | | 1,500 | | |
| 406 | City of Jacksonville | 0031399 sy | 490060 | 490090 | 3 | 10/80 | Country Creek PS & FM | 160 | | |
| 528 | same | 016005 | | | | | | 120 | | |
| 409 | City of Tampa | 0020940 cy | 634010 | 473230 | 2 | 10/84 | Cent. int sym relief fac | 81 | | |
| 526 | City Hall Tampa 33602 Hillsborough | 053001 | | | | | | 61 | | |
| 409 | City of Tampa | 0020940 cy | 473230 | 473240 | 3 | 5/85 | Cent. int sym relief fac | 2,781 | | |
| 526 | same | 053001 | | | | | | 2,086 | | |
| 409 | Santa Rosa Island Auth. | 0024007 | 589010 | 723010 | 2 | 10/84 | LS & FM to Peninsula STP | 56 | | |
| 526 | P. O. Box 9008 Pensacola 32561 Santa Rosa | No number | | | | | | 42 | | |
| 409 | Santa Rosa Island Auth. | 0024007 | 723010 | 723020 | 3 | 5/85 | LS & FM to Peninsula STP | 560 | | |
| 526 | same | No number | | | | | | 420 | | |
| 409 | Santa Rosa County | cy | 589010 | 687030 | 2 | 10/84 | Peninsula int | 100 | | |
| 526 | P. O. Box 472 Milton 32570 Santa Rosa | No number | | | | | | 75 | | |
| 409 | Santa Rosa County | cy | 687030 | 687040 | 3 | 5/85 | Peninsula int | 1,000 | | |
| 526 | same | No number | | | | | | 750 | | |
| 409 | City of Plant City | 0026557 cy | 604020 | 604030 | 3 | 5/83 | Phase I -- exp & U/G LSs | 620 | | |
| 526 | P. O. Drawer C Plant City 33566 Hillsborough | 054001 | | | | | | 470 | | |
| 416 | City of Tampa | 0020940 cy | 634010 | 473190 | 2 | 10/84 | N.E. int sym | 176 | | |
| 525 | same | 053001 | | | | | | 132 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
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EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 416 / 525 | City of Tampa<br>City Hall<br>Tampa 33602 Hillsborough | 0020940 cy<br>053001 | 473190 | 473200 | 3 | 5/85 | N.E. int sys | 6,002<br>4,501 | | |
| 416 / 525 | City of Bradenton<br>P. O. Drawer 730<br>Bradenton 33506 Manatee | 0027944<br>128001 | 540010 | 681030 | 2 | 10/80 | Proj. No. 3 West--inte, PSs & FMs | 693<br>520 | | |
| 416 / 525 | City of Bradenton<br>Same as above | 0027944<br>128001 | 681030 | 681040 | 3 | 10/83 | Proj. No. 3 West — inte, PSs & FMs | 8,000<br>6,000 | | |
| 420 / 524 | Manatee County<br>P. O. Drawer 730<br>Bradenton 33505 Manatee | cy<br>129001 | 540010 | 540100 | 2 | 2/85 | FM | 168<br>126 | | |
| 420 / 524 | Manatee County<br>Same as above | cy<br>129001 | 540100 | 540110 | 3 | 8/85 | FM | 1,680<br>1,260 | | |
| 420 / 524 | Manatee County<br>Same as above | cy<br>129001 | 540010 | 540120 | 2 | 2/85 | SS rehab | 488<br>366 | | |
| 420 / 524 | Manatee County<br>Same as above | cy<br>129001 | 540120 | 540070 | 3 | 8/85 | SS rehab | 4,883<br>3,662 | | |
| 420 / 524 | City of Gulf Breeze<br>P. O. Box 640<br>Gulf Breeze 32561 Santa Rosa | 0026310<br>048001 | 589010 | 722030 | 2 | 2/85 | Int S10I to Peninsula STP | 104<br>78 | | |
| 420 / 524 | City of Gulf Breeze<br>Same as above | 0026310<br>048001 | 722030 | 722040 | 3 | 8/85 | Int S10I to Peninsula STP | 1,040<br>780 | | |

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 & 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 420 | Cape Coral | 0030007 ay | 675010 | 675020 | 3 | 2/83 | LS & FM to N. Ft. Myers STP | 1,620 | | |
| 524 | P. O. Box 900 Cape Coral 33904 Lee | 126XXX | | | | | | | | |
| 427 | City of Tampa | 0020940 cy | 634010 | 473250 | 2 | 2/85 | Sulphur Springs int sym | 1,215 | | |
| 523 | City Hall Tampa 33602 Hillsborough | 053001 | | | | | | 60 | | |
| 427 | City of Tampa | 0020940 cy | 473250 | 473260 | 3 | 8/85 | Sulphur Springs int sym | 45 | | |
| 523 | same | 053001 | | | | | | 2,020 | | |
| 427 | City of Tampa | 0020940 cy | 634010 | 473210 | 2 | 2/85 | Interbay int sym relief fac | 1,512 | | |
| 523 | same | 053001 | | | | | | 36 | | |
| 427 | City of Tampa | 0020940 cy | 473210 | 473220 | 3 | 8/85 | Interbay int sym relief fac | 27 | | |
| 523 | same | 053001 | | | | | | 1,226 | | |
| 427 | City of Plant City | 0026557 cy | 604080 | 604090 | 3 | 5/83 | Plant Ave. int | 919 | | |
| 523 | P. O. Drawer C Plant City Hillsborough | 054001 | | | | | | 760 | | |
| 427 | Lee County | cy | 392040 | 392070 | 3 | 2/83 | N. Ft. Myers int sym | 570 | | |
| 523 | P. O. Box 398 Ft. Myers 33902 Lee | 126004 | | | | | | 9,243 | | |
| 427 | Town of Greensboro | cy | 551030 | 551060 | 3 | 5/83 | Int sym | 6,932 | | |
| 523 | P. O. Box 66 Greensboro 32330 Gadsden | 110001 | | | | | | 280 | | |
| 434 | Town of Havana | 0030333 | 572010 | 572020 | 2 | 10/80 | SS rehab | 210 | | |
| 522 | P. O. Box 1068 Havana 32333 Gadsden | 003001 | | | | | | 12 | | |
| 434 | Town of Havana | 0030333 | 572020 | 572050 | 3 | 10/83 | SS rehab | 9 | | |
| 522 | same | 003001 | | | | | | 124 | | |
| | | | | | | | | 93 | | |

STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980

PLANNING PORTION



EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* / FI. / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 434 | City of Crestview<br>P. O. Box 1207<br>Crestview 32536 Okaloosa | 0027782 cy<br>142001 | 432030 | 432060 | 3 | 8/83 | Int sys | 1,000 | | |
| 522 | | | | | | | | 750 | | |
| 437 | City of Plant City<br>P. O. Drawer C<br>Plant City 33566 Hillsborough | 0026577 cy<br>054001 | 604040 | 604050 | 3 | 8/83 | Risk St. int | 260 | | |
| 521 | | | | | | | | 200 | | |
| 437 | City of DeLand<br>P. O. Box 449<br>DeLand, 32720 Volusia | 0020303 cy<br>192001 | 424030 | 424040 | 2 | 2/85 | Int & laterals | 933 | | |
| 521 | | | | | | | | 700 | | |
| 437 | City of DeLand<br>same | 0020303 cy<br>192001 | 424040 | 424060 | 3 | 8/85 | Int & laterals | 9,329 | | |
| 521 | | | | | | | | 6,997 | | |
| 437 | City of Crestview<br>P. O. Box 1207<br>Crestview 32536 Okaloosa | 0027782 sy<br>142001 | 432020 | 432080 | 3 | 10/82 | SS rehab | 175 | | |
| 521 | | | | | | | | 130 | | |
| 441 | City of Tampa<br>City Hall<br>Tampa 33602 Hillsborough | 0020940 cy<br>053001 | 634010 | 473150 | 2 | 2/85 | Ext Interbay int sys South | 118 | | |
| 520 | | | | | | | | 88 | | |
| 441 | City of Tampa<br>same | 0020940 cy<br>053001 | 473150 | 473160 | 3 | 11/85 | Ext Interbay int sys South | 1,469 | | |
| 520 | | | | | | | | 1,102 | | |
| 441 | Hillsborough County<br>P. O. Box 1110<br>Tampa 33601 Hillsborough | 0028061 sy<br>056007 | 682010 | 682060 | 2 | 2/85 | Ruskin & Wimauma ints & PSs | 229 | | |
| 520 | | | | | | | | 172 | | |
| 441 | Hillsborough County<br>same | 0028061 cy<br>056007 | 682060 | 682070 | 3 | 11/85 | Ruskin & Wimauma ints & PSs | 2,290 | | |
| 520 | | | | | | | | 1,718 | | |
| 441 | Hillsborough County<br>same | 0027821 cy<br>056001 | 588010 | 588030 | 2 | 10/80 | River Oaks Int | 1,067 | | |
| 520 | | | | | | | | 800 | | |

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 441 / 520 | Hillsborough County P. O. Box 1110 Tampa 33601 Hillsborough | 0027821 cy / 056001 | 588030 | 588040 | 3 | 10/84 | River Oaks Int. | 10,667 / 8,000 | | |
| 441 / 520 | Hillsborough County Same as above | 0027821 ay / 056001 | NA | 588010 | 1 | 11/82 | G.I. -- studies for N.W. irr and sldg disp sites | 200 / 150 | | |
| 441 / 520 | Hillsborough County Same as above | 0027821 ay / 056001 | NA | 588010 | 1 | 11/82 | G.I. -- SSES for Northwest | 489 / 367 | | |
| 449 / 518 | City of Sanford P. O. Box 1778 Sanford 32771 Seminole | 0020141 / 042001 | 586010 | 586070 | 2 | 5/85 | SS rehab | 83 / 62 | | |
| 449 / 518 | City of Sanford Same as above | 0020141 / 042001 | 586020 | 586080 | 3 | 11/85 | SS rehab | 836 / 627 | | |
| 451 / 517 | Hillsborough County Same as above | 0029319 ay / 056001 | 588010 | 588110 | 2 | 5/85 | Carrollwood reg ints and PSs | 67 / 50 | | |
| 451 / 517 | Hillsborough County Same as above | 0029319 ay / 056001 | 588110 | 588120 | 3 | 11/85 | Carrollwood reg ints & PSs | 670 / 503 | | |
| 453 / 516 | City of Winter Garden P. O. Box 1005 Winter Garden 32789 Orange | 0020109 cy / 019001 | 398020 | 398060 | 2 | 5/85 | Phase II int | 89 / 67 | | |
| 453 / 516 | City of Winter Garden Same as above | 0020109 cy / 019001 | 398060 | 398070 | 3 | 11/85 | Phase II int | 892 / 669 | | |

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 453 | City of Tampa<br>City Hall | cy | 634010 | 473270 | 2 | 2/85 | Ext Cent. int sys N.W. | 133 | | |
| 516 | Tampa 33602 Hillsborough | 053001 | | | | | | 100 | | |
| 453 | City of Tampa<br>Same as above | cy | 634010 | 473120 | 3 | 8/85 | Ext Cent. int sys N.W. | 4,551 | | |
| 516 | | 053001 | | | | | | 3,413 | | |
| 453 | City of Tampa<br>Same as above | 0020940 cy | 634010 | 473130 | 2 | 5/85 | Ext Interbay Int North | 75 | | |
| 516 | | 053001 | | | | | | 53 | | |
| 453 | City of Tampa<br>Same as above | 0020940 cy | 473130 | 473140 | 3 | 11/85 | Ext Interbay Int North | 2,459 | | |
| 516 | | 053001 | | | | | | 1,844 | | |
| 453 | Polk County<br>P. O. Box 707 | cy | 601040 | 601050 | 3 | 10/80 | Int — S. Lakeland to Mulberry STP | 951 | | |
| 516 | Mulberry 33860 Polk | 298001 | | | | | | 713 | | |
| 460 | City of Winter Park<br>401 S. Park Ave. | 0020419 | 651030 | 651040 | 2 | 10/80 | SS rehab | 100 | | |
| 514 | Winter Park 32789 Orange | 025001 | | | | | | 75 | | |
| 460 | City of Winter Park<br>Same as above | 0020419 | 651040 | 651050 | 3 | 10/82 | SS rehab | 1,000 | | |
| 514 | | 025001 | | | | | | 750 | | |
| 460 | City of Casselberry<br>P. O. Box 55 | 0027715 sy | 561010 | 561060 | 2+3 | 10/80 | SS rehab | 350 | | |
| 514 | Casselberry 32707 Seminole | 044001 | | | | | | 262 | | |
| 463 | City of Riviera Beach<br>P. O. Drawer 10682 | 0026913 cy | 539020 | 539030 | 3 | 10/80 | PS 35 & PN, PS 100 & PN | 307 | | |
| 513 | Riviera Beach 33404 Palm B. | 079001 | | | | | | 230 | | |

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STATE OF FLORIDA

CONSTRUCTION GRANTS PRIORITY LIST - FY 1980
PLANNING PORTION

EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 464 / 512 | City of Marianna<br>P. O. Box 936<br>Marianna 32446 Jackson | 0020117 ay<br>No Number | 451010 | 451050 | 2+3 | 11/85 | Baxter School int | 90<br>68 | | |
| 465 / 510 | City of Hollywood<br>P. O. Box 2207<br>Hollywood 33022 Broward | 0030392 ay<br>001XXX | 594010 | 594220 | 2 | 5/85 | PMs & PSs to serve Bonaventure, Plantation W. & Ferncrest | 533<br>400 | | |
| 465 / 510 | City of Hollywood<br>Same as above | 0030392 ay<br>001XXX | 594220 | 594230 | 3 | 2/86 | PMs & PSs to serve Bonaventure, Plantation W. & Ferncrest | 6,000<br>4,500 | | |
| 467 / 509 | City of New Smyrna Beach<br>P. O. Box 490<br>New Smyrna B. 32069 Volusia | 0020133 ay<br>190001 | 619010 | 426030 | 2 | 10/80 | SS rehab | 12<br>9 | | |
| 467 / 509 | City of New Smyrna Beach<br>Same as above | 0020133<br>190001 | 426030 | 426040 | 3 | 10/82 | SS rehab | 120<br>90 | | |
| 467 / 509 | City of Lake City<br>P. O. Box 202<br>Lake City 32055 Columbia | 0024937 ay<br>106001 | 462010 | 462050 | 2 | 10/80 | I-75 int | 71<br>53 | | |
| 467 / 509 | City of Lake City<br>Same as above | 0024937 ay<br>106001 | 462050 | 462080 | 3 | 10/82 | I-75 int | 700<br>525 | | |
| 467 / 509 | City of Lake City<br>Same as above | by<br>106001 | 462010 | 462060 | 2 | 10/80 | Community College int | 31<br>23 | | |
| 467 / 509 | City of Lake City<br>Same as above | by<br>106001 | 462060 | 462070 | 3 | 10/83 | Community College int | 300<br>225 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Eligl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Eligl. Cost-$1000's / Altern.Eligl. Cost-$1000's | Step 3 & 2 + 3 Eligl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 467 / 509 | City of Haines City P. O. Box 1507 Haines City 33844 Polk | 0021318 / 162001 | 568010 | 568020 | 2 | 5/85 | Inc | 55 / 41 | | |
| 467 / 509 | City of Haines City Same as above | 0021318 / 162001 | 568020 | 568030 | 3 | 2/86 | Inc | 551 / 413 | | |
| 475 / 508 | City of Ft. Pierce P. O. Box 3191 Ft. Pierce 33450 St. Lucie | 0027278 cy / 173001 | 463040 | 463050 | 3 | 11/83 | Int, PS & FM | 1,982 / 1,487 | | |
| 476 / 507 | City of Lynn Haven 825 Ohio Ave. Lynn Haven 32444 Bay | 0027804 ay / No number | 450010 | 746010 | 2+3 | 11/83 | SS rehab | 200 / 150 | | |
| 477 / 506 | City of Ft. Pierce Same as above | 0027278 ap / 173001 | 463010 | 463060 | 2 | 5/85 | SS rehab & exp coll sys | 50 / 38 | | |
| 477 / 506 | City of Ft. Pierce P. O. Box 3191 Ft. Pierce 33450 St. Lucie | 0027278 ap / 173001 | 463060 | 463070 | 3 | 2/86 | SS rehab & exp coll sys | 445 / 334 | | |
| 477 / 504 | Santa Rosa County P. O. Box 472 Milton 32570 Santa Rosa | cy / No Number | 589010 | 687070 | 2 | 5/85 | Pace int | 191 / 143 | | |
| 479 / 504 | Santa Rosa County Same as above | cy / No Number | 687070 | 687080 | 3 | 2/86 | Pace int | 1,900 / 1,425 | | |
| 479 / 504 | City of St. Cloud 1300 Ninth St. St. Cloud 32769 Osceola | 0028959 cy / No Number | 509010 | 686040 | 2 | 5/85 | Int sysm | 1,064 / 798 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Remov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 479 | City of St. Cloud | 0028959 cy | 686040 | 686050 | 3 | 2/86 | Int sysm | 7,095 | | |
| 504 | 1300 Ninth St. St. Cloud 32769 Osceola | No Number | | | | | | 5,322 | | |
| 483 | City of Gainesville | 0032379 cy | 497030 | 497040 | 3 | 8/84 | Tower Rd. PS & FM | 350 | | |
| 500 | P. O. Box 490 Gainesville 32602 Alachua | 005003 | | | | | | 263 | | |
| 483 | City of Bartow | 0026018 ay | 598020 | 598050 | 3 | 10/80 | Airport PS & FM | 1,333 | | |
| 500 | 250 N. Central Ave. Bartow 33830 Polk | 154001 | | | | | | 1,000 | | |
| 483 | City of Belle Glade | 0031291 ay | 724030 | 724040 | 3 | 11/84 | Arrowhead FM & LS | 925 | | |
| 500 | 110 S.W. Ave. E Belle Glade 33430 Palm B. | 085002 | | | | | | 694 | | |
| 486 | City of St. Augustine | 0021938 ay | 664010 | 664020 | 2+3 | 10/80 | SS rehab | 1,170 | | |
| 499 | P. O. Drawer 2107 St. Augustine 32084 St. Johns | 172XXX | | | | | | 878 | | |
| 486 | City of Ft. Meade | cy | 606010 | 606020 | 2 | 8/85 | Int | 67 | | |
| 499 | P. O. Box 856 Ft. Meade 33841 Polk | 160001 | | | | | | 50 | | |
| 486 | City of Ft. Meade | cy | 606020 | 606030 | 3 | 2/86 | Int | 666 | | |
| 499 | Same as above | 160001 | | | | | | 500 | | |
| 489 | Lee County | by | 392080 | 392090 | 3 | 11/84 | Int, FM & PS — Matlacha Is. | 409 | | |
| 496 | P. O. Box 398 Ft. Myers 32902 Lee | 126XXX | | | | | | 307 | | |
| 490 | City of Apalachicola | 0021971 cy | 427010 | 427030 | 2 | 10/80 | Int | 15 | | |
| 494 | City Hall Apalachicola 32320 Franklin | 108000 | | | | | | 11 | | |

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EFFECTIVE October 1, 1979

| Priority and Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 490 / 494 | City of Apalachicola City Hall Apalachicola 32320 Franklin | 0021971 cy / 108000 | 427030 | 427050 | 3 | 10/84 | Int | 135 / 101 | | |
| 492 / 493 | City of DeFuniak Springs P. O. Box 287 DeFuniak Springs 32433 Walton | 0021580 sy / No Number | 425010 | 425020 | 2+3 | 10/80 | SS rehab | 260 / 194 | | |
| 492 / 493 | City of Crystal River 123 N.W. Highway 19 Crystal River 32629 Citrus | 0024431 sp / No Number | 583010 | 583050 | 2 | 10/80 | N.W., E & S Ints | 127 / 95 | | |
| 492 / 493 | City of Crystal River Same as above | 0024431 / No Number | 583050 | 583060 | 3 | 10/85 | N.W., E & S Ints | 1,263 / 947 | | |
| 492 / 493 | City of Crystal River Same as above | 0028371 sy / No Number | 583010 | 583040 | 2 | 10/80 | SS rehab | 34 / 25 | | |
| 492 / 493 | City of Crystal River Same as above | 0028371 / No Number | 583040 | 583070 | 3 | 10/84 | SS rehab | 339 / 254 | | |
| 492 / 493 | City of Cerrabelle P. O. Drawer 569 Cerrabelle 32322 Franklin | 0026808 cy / No Number | 549010 | 549060 | 2+3 | 11/85 | Ints | 300 / 225 | | |
| 498 / 492 | City of Williston P. O. Drawer 160 Williston 32696 Levy | 0025127 cy / 127001 | 649010 | 649050 | 2+3 | 11/85 | Int & PM | 74 / 56 | | |
| 498 / 492 | City of Wauchula City Hall Wauchula 33873 Hardee | 0023949 sy / No Number | 624010 | 624090 | 2 | 8/85 | SS rehab | 120 / 90 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 496 | City of Wauchula City Hall Wauchula 33873 Hardee | 0023949 | 624090 | 624100 | 3 | 2/86 | SS rehab | 1,200 | | |
| 492 | | No Number | | | | | | 900 | | |
| 498 | City of Wauchula Same as above | 0023949 cy | 624010 | 624070 | 2 | 8/85 | North int | 36 | | |
| 492 | | No Number | | | | | | 27 | | |
| 498 | City of Wauchula Same as above | 0023949 cy | 624070 | 624080 | 3 | 2/86 | North int | 400 | | |
| 492 | | No Number | | | | | | 300 | | |
| 498 | City of Wauchula Same as above | 0023949 sy | 624050 | 624060 | 3 | 5/83 | S. int | 400 | | |
| 492 | | No Number | | | | | | 300 | | |
| 498 | City of Macclenny 118 E. Macclenny Ave. Macclenny 32063 Baker | 0027774 | MA | 618010 | 1 | 10/81 | CI -- SSES | 184 | | |
| 492 | | No Number | | | | | | 138 | | |
| 498 | City of Macclenny Same as above | 0027774 | 618010 | 618020 | 2 | 8/85 | SS rehab | 80 | | |
| 492 | | No Number | | | | | | 60 | | |
| 498 | City of Macclenny Same as above | 0027774 | 618020 | 618030 | 3 | 2/86 | SS rehab | 1,845 | | |
| 492 | | No Number | | | | | | 1,384 | | |
| 507 | City of Vernon P. O. Box 347 Vernon 33462 Washington | 0028941 cy | 577010 | 577020 | 2 | 8/85 | Int | 11 | | |
| 491 | | No Number | | | | | | 8 | | |
| 507 | City of Vernon Same as above | 0028941 cy | 577020 | 577040 | 3 | 2/86 | Int | 107 | | |
| 491 | | No Number | | | | | | 80 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120- | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 507 | City of Chipley P. O. Drawer "Q" | 0027570 ap | 576050 | 576060 | 3 | 11/84 | Int | 345 | | |
| 491 | Chipley 32428 Washington | No Number | | | | | | 259 | | |
| 507 | City of Bonifay P. O. Box 206 | 0027731 cy | 452010 | 452040 | 2+3 | 11/85 | Ints for uncovered areas | 250 | | |
| 491 | Bonifay 32425 Holmes | No Number | | | | | | 188 | | |
| 511 | City of Vernon P. O. Box 347 | 0028941 ay | 577030 | 577050 | 3 | 11/84 | SS rehab | 605 | | |
| 490 | Vernon 32462 Washington | No Number | | | | | | 454 | | |
| 511 | City of Chipley P. O. Drawer "Q" | 0027570 ay | 576010 | 576070 | 2+3 | 11/85 | SS rehab | 150 | | |
| 490 | Chipley 32425 Washington | No Number | | | | | | 113 | | |
| 511 | City of Blountstown 125 W. Central Ave. | 0026867 | 548040 | 548080 | 3 | 10/80 | SS rehab | 75 | | |
| 490 | Blountstown 32424 Calhoun | 010001 | | | | | | 56 | | |
| 514 | City of Jacksonville Beach 11 N. Third St. | 0020231 ay | 614040 | 614060 | 3 | 11/85 | Ints to reg STP | 8,453 | | |
| 489 | Jacksonville Beach 32250 Duval | 013001 | | | | | | 6,340 | | |
| 515 | City of Jacksonville Beach Same as above | 0020231 ay | 614010 | 614070 | 2 | 8/85 | Phase I int sysm | 480 | | |
| 482 | | 013001 | | | | | | 360 | | |
| 515 | City of Jacksonville Beach Same as above | 0020231 ay | 614070 | 614080 | 3 | 2/86 | Phase I int sysm | 6,241 | | |
| 482 | | 013001 | | | | | | 4,681 | | |
| 517 | City of Green Cove Springs 229 Walnut St. | 0020915 cy | 679010 | 679040 | 2 | 10/80 | Ints -- areas 1 and 2-A | 39 | | |
| 480 | Green Cove Springs 32043 Clay | 102001 | | | | | | 29 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 517 / 480 | City of Green Cove Springs<br>229 Walnut St.<br>Green Cove Springs 32043 Clay | 0020915 cy<br>102001 | 679040 | 679050 | 3 | 10/84 | Ints - areas 1 & 2-A | 411<br>308 | | |
| 517 / 480 | City of Atlantic Beach<br>P. O. Drawer 25<br>Atlantic Beach 32233 Duval | 0023914 cy<br>014001 | 614010 | 747010 | 2 | 8/85 | Ints syms | 61<br>46 | | |
| 517 / 480 | City of Atlantic Beach<br>Same as above | 0023914 cy<br>014001 | 747010 | 747020 | 3 | 2/86 | Int syms | 797<br>598 | | |
| 521 / 478 | City of Jacksonville Beach<br>11 N. Third St.<br>Jacksonville B. 32250 Duval | 0020231<br>013001 | 614010 | 614020 | 2 | 10/80 | Duval Beaches SS rehab | 212<br>159 | | |
| 521 / 478 | City of Jacksonville Beach<br>Same as above | 0020231<br>013001 | 614020 | 614030 | 3 | 10/84 | Duval Beaches SS rehab | 2,116<br>1,587 | | |
| 523 / 475 | City of Naples<br>735 Eighth St. S.<br>Naples 33940 Collier | 0026271 cy<br>103001 | 597010 | 713050 | 2+3 | 11/85 | 2,300 gpm, master PS & FM | 492<br>369 | | |
| 523 / 475 | City of Naples<br>Same as above | 0026271 cy<br>103001 | 597010 | 713030 | 2 | 8/85 | 3 master PSs & FMs in Northeast | 164<br>123 | | |
| 523 / 475 | City of Naples<br>Same as above | 0026271 cy<br>103001 | 713030 | 713040 | 3 | 2/86 | 3 master PSs & FMs in Northeast | 2,331<br>1,746 | | |
| 526 / 469 | Brevard County<br>2575 N. Courtenay Parkway<br>Merritt Island 32952 Brevard | cy<br>099010 | 579010 | 579070 | 2 | 8/85 | S. Beaches int | 100<br>75 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 526 / 469 | Brevard County<br>2575 N. Courtenay Parkway<br>Merritt Island 32952 Brevard | cy<br>099010 | 579070 | 579080 | 3 | 5/86 | S Beaches int | 1,000 | | |
| 528 / 457 | City of Delray Beach<br>100 N.W. 1st Ave.<br>Delray Beach 33444 Palm Beach | cy<br>008001 | 653080 | 653090 | 3 | 11/84 | Gravity ints to LSs 50 and 80 | 750<br>350 | | |
| 528 / 457 | City of Boynton Beach<br>P. O. Box 310<br>Boynton Beach 33435 Palm Beach | 0020265<br>081001 | 496050 | 496060 | 3 | 11/84 | Ints to LSs 316, 317 and 319 | 263<br>213 | | |
| 530 / 456 | City of Boynton Beach<br>Same as above | 0020265<br>081001 | 496070 | 496080 | 3 | 2/85 | San Castle PS & FM, Brinny Breezes FM, LSs 18A & BG1 | 160<br>188 | | |
| 531 / 455 | City of Deerfield Beach<br>P. O. Drawer AH<br>Deerfield Beach 33441 Broward | 0031771<br>001010 | 693010 | 693020 | 2 | 8/85 | SS rehab | 141<br>40 | | |
| 531 / 455 | City of Deerfield Beach<br>Same as above | 0031771<br>001010 | 693020 | 693030 | 3 | 2/86 | SS rehab | 30<br>400 | | |
| 531 / 455 | City of Boynton Beach<br>Same as above | cy<br>081001 | 623010 | 496040 | 3 | 2/85 | LSs 357 & 358 & FMs | 300<br>2,075 | | |
| 534 / 166 | Florosa Water & Sewer Dist.<br>610 Skylark Road<br>Mary Ester 32569 Okaloosa | cy<br>No Number | 589010 | 702030 | 2 | 8/85 | Coll sys | 1,556<br>77 | | |
| 534 / 166 | Florosa Water & Sewer Dist.<br>Same as above | cy<br>No Number | 702030 | 702040 | 3 | 5/86 | Coll sys | 58<br>668<br>501 | | |

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| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 536 / 140 | City of Plantation 400 N.W. 73rd Ave. Plantation 33317 Broward | cy / 001003 | 737010 | 737020 | 2 | 8/85 | Coll sys | 300 / 225 | | |
| 536 / 140 | City of Plantation Same as above | cy / 001003 | 737020 | 737030 | 3 | 5/86 | Coll sys | 3,000 / 2,250 | | |
| 538 / 124 | City of Gulf Breeze P. O. Box 640 Gulf Breeze 32561 Santa Rosa | cy / 048001 | 589010 | 722010 | 2 | 11/85 | Exp coll sys | 140 / 105 | | |
| 538 / 124 | City of Gulf Breeze Same as above | cy / 048001 | 722010 | 722020 | 3 | 5/86 | Exp coll sys | 1,400 / 1,050 | | |
| 540 / 121 | City of Crestview P. O. Box 1207 Crestview 32536 Okaloosa | 0027782 / 142001 | 432010 | 432040 | 2 | 11/85 | Coll sys | 83 / 62 | | |
| 540 / 121 | City of Crestview Same as above | 0027782 / 142001 | 432040 | 432070 | 3 | 5/86 | Coll sys | 831 / 623 | | |
| 542 / 120 | Sarasota County P. O. Box 1058 Sarasota 33578 Sarasota | cy / 177XXX | 587010 | 587040 | 2 | 11/85 | Coll sys N. of 17th Street | 296 / 222 | | |
| 542 / 120 | Sarasota County Same as above | cy / 177XXX | 587040 | 587060 | 3 | 5/86 | Coll sys N. of 17th Street | 2,967 / 2,225 | | |
| 542 / 120 | Hillsborough County P. O. Box 1110 Tampa 33601 Hillsborough | cy / 056007 | 682010 | 682080 | 2 | 11/85 | Ruskin & Wimauma coll sys | 577 / 433 | | |

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EFFECTIVE October 1, 1979

| Priority Rank / Priority Points | Applicant's Legal Name / Street Address / City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst.-$1000's | Innov.Elgbl. Cost-$1000's / Altern.Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 542 / 120 | Hillsborough County<br>P. O. Box 1110<br>Tampa 33601 Hillsborough | cy<br>056007 | 682080 | 682090 | 3 | 5/86 | Ruskin & Wimauma coll sys | 5,770 | | |
| 546 / 114 | Lake Clarke Shores<br>1701 Barbados Road<br>Lake Clarke Shores Palm Beach | cy<br>No Number | 613010 | 700030 | 2 | 11/85 | Coll sys | 4,327<br>205 | | |
| 546 / 114 | Lake Clarke Shores<br>Same as above | cy<br>No Number | 700030 | 700040 | 3 | 5/86 | Coll sys | 154<br>2,060 | | |
| 548 / 109 | City of Edgewater<br>P. O. Box 100<br>Edgewater 32032 Volusia | No Number | 619010 | 720010 | 2 | 11/85 | Coll sys | 1,545<br>280 | | |
| 548 / 109 | City of Edgewater<br>Same as above | No Number | 720010 | 720020 | 3 | 5/86 | Coll sys | 210<br>2,800 | | |
| 550 / 100 | City of Mexico Beach<br>P. O. Box 13425<br>Mexico Beach 32410 Bay | cy<br>No Number | 545010 | 545060 | 2 | 11/85 | Coll sys | 2,100<br>60 | | |
| 550 / 108 | City of Mexico Beach<br>Same as above | cy<br>No Number | 545060 | 545070 | 3 | 5/86 | Coll sys | 45<br>600 | | |
| 552 / 105 | City of Hallandale<br>308 S. Dixie Highway<br>Hallandale 33009 Broward | cy<br>No Number | 448020 | 448030 | 2 | 10/80 | Coll sys | 450<br>400 | | |
| 552 / 105 | City of Hallandale<br>Same as above | cy<br>No Number | 448030 | 448040 | 3 | 9/81 | Coll sys | 300<br>5,600<br>4,200 | | |

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EFFECTIVE October 1, 19[illegible]

| Priority Rank / Priority Points | Applicant's Legal Name Street Address City, Zip Code, County | NPDES No.* FL- / Needs No. 120 | Parent Project Grant Number C120 | Project Grant ID Number C120 | Step | Cert. Target Date Mo/Yr | Project Description | Total Elgbl. Cost-$1000's / Est. EPA Asst. $1000's | Innov. Elgbl. Cost-$1000's / Altern. Elgbl. Cost-$1000's | Step 3 & 2 + 3 Elgbl. Costs by Category $1000's |
|---|---|---|---|---|---|---|---|---|---|---|
| 554 / 104 | Santa Rosa County<br>P. O. Box 472<br>Milton 32570 | cy<br>No Number | 589010 | 687100 | 2 | 11/85 | Face coll sys | 144<br>108 | | |
| 554 / 104 | Santa Rosa County<br>Same as above | cy<br>No Number | 687100 | 687110 | 3 | 5/86 | Face coll sys | 1,441<br>1,081 | | |
| 556 / 91 | City of Chipley<br>P. O. Drawer "Q"<br>Chipley 32428 Washington | cy<br>No Number | 576010 | 576030 | 2+3 | 2/86 | Coll sys | 152<br>114 | | |
| 557 / 76 | City of Fernandina Beach<br>P. O. Box 668<br>Fernandina Beach 32034 Nassau | 0027260<br>137001 | 673010 | 673040 | 2 | 11/85 | Coll sys | 431<br>323 | | |
| 557 / 76 | City of Fernandina Beach<br>Same as above | 0027260 cy<br>137001 | 673040 | 673050 | 3 | 5/86 | Coll sys | 4,309<br>3,232 | | |
| | | | | | | | Planning Portion Totals ($1,000's): | 1,205,442<br>904,379 | | |

CONSULTING ENGINEERS COUNCIL OF NEW JERSEY

66 MORRIS AVENUE SPRINGFIELD, N.J. 07081 201-379-1100 P.O. BOX 359

RECEIVED

NOV

November 27, 1979

CONG. NORMAN Y. MINETA

The Hon. Norman Mineta
Chairman,
Subcommittee on Oversight and Review
B376, Rayburn House Office Building
Washington, D. C. 20515

Dear Congressman Mineta:

I request that the attached material be included in the record of the recent hearings of the EPA Construction Grants Program. This material details the delays and resulting waste of funds in connection with the confusion and red tape experienced by everyone who is involved with this program.

Sincerely,

Peter Allen,
Executive Director

PA:fm
Enclosure

We have asked leading consulting firms active in New Jersey and New England to provide case histories which typify the problems preventing the achievement of the goals of the Clean Water Act. A total of thirteen firms submitted the 46 case histories attached hereto.

Major problems and delays have resulted from:

1. Review times taken by regulatory bodies. (23 instances)

2. Changing regulations, conflicting interpretations of regulations and, at times, almost capricious actions by individuals with respect to regulations. (14 instances)

3. Audits performed in a manner injurious to the mutual trust that should be characteristic with engineer-client relationships. (6 instances)

4. Disagreements with USEPA over form and payment clauses in professional service contracts between the engineer and client. (3 instances)

The obvious areas where improvements are required are in speeding the review process and interpretations of regulations.

The following are very brief descriptions of incidents which caused serious problems and delays:

* Changes required in a specification format to eliminate "one penny" bids lost eight months and did not eliminate "one penny" bids.

* Changing population forecast figures from those approved in the Plan of Study to those in the 208 Water Quality Plan resulted in a two-year delay.

* Changing requirements with respect to handling septage prevented approval of a Step 1 Grant after three years of review.

* In one instance an USEPA reviewer indicated he didn't know when he would get to review the project materials submitted to him.

* One firm listed seven Step 1 and 2 projects under review for an average period of 18 months without approval.

* Another firm proceeded on USEPA's verbal assurance that no problems existed for approval of a proposed modification to a particular process component. However, written confirmation could not be given since everything would be handled as a package "to reduce time and paperwork". The outcome was that the engineer was not reimbursed for his work because, in one instance, the work was done before USEPA approval; and, in the second instance, because a new reviewer disapproved the work for a totally unrelated reason. This is double jeopardy and makes expediting work by proceeding prior to approval hazardous.

* A difficult assignment involving development of new technology with potential impact on $30 or $40 billion worth of new construction was contracted for at a lump sum of about $50,000. This sum included a target pre-tax profit of 20 percent. USEPA Washington advised that they would not approve a target pre-tax profit of more than eight percent. Because of problems experienced in developing new technolo-

gy, this job will result in a loss at the target pre-tax profit of 20 percent. In any event, a target profit of eight percent is too low. At this rate if no problems are experienced in the progress of the work, an engineering firm would receive no profit because of USEPA "unallowable" costs approximating five percent of the actual overhead costs.

* It took USEPA and the State regulatory agency from October 1974 to August 1978 to determine that a proposed project was ineligible for grant funding because of changes in USEPA regulations.

* USEPA rejected previously approved fees called for by an engineering contract dated, and under which work was done, prior to the existing regulations. The arbitrary interpretation of USEPA reviewers claimed the grant eligible fee should be reduced by $1,200,000, although the engineer submitted substantial records showing that the original fee would have still resulted in a "no profit" job. The reduced fee, if accepted by the engineer, would have resulted in a prohibitive loss.

* Between 1966 and 1974, five USEPA and State-directed studies called for a large regional sewer system. After $276 million in grant awards for Step 3 construction, a no-growth policy was enforced which resulted in a plant with a rated capacity of 24 mgd to go on line with an influent flow of 0.5 mgd.

* One engineering firm reports five Step 1 planning projects waiting an average of more than eight months and five Step 2 projects waiting an average of more than 22 months without approvals.

* A project for Step 1 planning involving Advanced Wastewater Treatment (AWT) submitted in March 1977 cannot (at the earliest) be approved until the end of 1979 because of changing requirements.

* Work under a grant offer made in May 1976 has been reviewed, re-reviewed and delayed. This tedious process is documented by more than two dozen letters. This has resulted in an increased scope of work, and the engineer has now requested a grant amendment.

* In the Spring of 1977, a town instituted funding for a Step 1 study. Continued minor modifications were requested. Eighteen months later, in order for the work to proceed, the engineers accepted a reduced fee for an increased work scope and a change in the contract form.

* A recorded case shows the USEPA and the State regulatory body spending four and one-half years on a local water pollution problem without resolution because of inconsistent requirements.

* USEPA returned a grant application more than a year after submission because of "excessive delays". These delays resulted from new USEPA-dictated regulatory requirements and informal policy determinations.

* USEPA requirements dictate that a contract signed in July 1973 to cover an entire project will have to have at least 11 supplementary agreements before the work is completed.

* The requirement that USEPA approve Value Engineering (VE) originated changes before they are undertaken could delay

Step 2 work well over a year and obviate much of the VE saving by inflation. The only way this has been overcome on one job is for the engineer to proceed without approval on those changes he deemed proper.

* Individual opinions by new USEPA employees have altered previously approved concepts to the serious detriment of major works.

The bottom line is:

1. With everyone cooperating and no regulatory problems, a major project cannot be expected to proceed from Step 1 inception to operation in less than nine years.

2. With even minor controversy, major essential projects can be delayed indefinitely.

The USEPA grant process and continually changing regulations are defeating the program they were designed to carry out.

## I. DELAYS CAUSED BY EXCESSIVE REVIEWS

A. New Jersey Case Histories:

1. Between October of 1974 and August of 1978, the USEPA and the NJDEP proceeded with the processing of grant applications and with the review of project and technical reports without any indication that a Carlstadt Sewerage Authority project would not be eligible. In August there was an informal indication to Clinton Bogert Associates (CBA) to the effect that the project might be ineligible but it wasn't until October of 1978 that USEPA "clarified" its regulations rendering the project ineligible. At no time between October 1974 and August 1978 was any indication given that the project would be ineligible. The client expended a great deal of time and money in the process. (A-31)

2. Because of backlogs in USEPA review process, the engineer (CBA) was forced to perform various phases of Value Engineering work without prior approval from USEPA. Not to do the work would have held up this Trenton, New Jersey project for close to a year. Although USEPA personnel informally agreed with the logic of "getting on with the job," they were powerless to give formal authorization. (A-71)

B. New England Case Histories:

1. When requested to indicate the status of a sewer system evaluation survey report, a Region I USEPA staff member reported to an employee of Linenthal Eisenberg Anderson (LEA) that he did not know when he would have a chance to review the report. (A-20)

2. C-E Maguire listed eight Step 1 or Step 2 projects for which it was awaiting Region I USEPA approval. With the exception

of one project which was under review "only" three months, the rest have been under consideration for an average of more than one and a half years. Also, that average does not take into consideration the fact that for the Step 1 projects (three of the eight under review), several months of review precede the application in order to make final the Plan of Study. In five of the eight situations, after nine to eighteen months had passed, the USEPA required an update or revision of the Plan, resulting in more delays and more expense. fee/profit negotiations and delays related to processing applications were the key problem areas according to this engineer. (A-21)

3. During the design of treatment plants, an engineer (C-E Maguire) requested the State and USEPA to approve several modifications to key process components. The requests were not reviewed for several months, forcing the engineer to either stop work or take a chance and continue without approval. Instead of being rewarded for moving the projects along, the engineer was penalized because costs related to work done before approval of the modifications were not approved. It should be noted that the responses were not forthcoming to the requests because of, for example, "pending" policy changes or decisions to wait and "handle everything as a package to reduce time and paperwork." (A-23)

4. Whitman & Howard charted five Step 1 (planning) projects and five Step 2 (design) projects that had been submitted to the USEPA Region I for final review. The Step 1 projects have been waiting an average of more than eight months; the Step 2 projects more than 22 months. (A-49)

5. The State of Massachusetts and USEPA waited and refused to decide on request for reimbursement for two reports for a period of nearly a year and a half. In addition, USEPA has changed various regulatory requirements resulting in more work and higher costs. The engineer (Camp, Dresser & McKee) rather than being permitted to

raise its fee has been asked to lower it and to change the fee to a cost plus fixed fee method. Since the client (Andover, Massachusetts) has been forced to vote three times to approve changes and increases, it is not likely that the town will go along with any more revisions. (A-56)

6. The USEPA and the State of Massachusetts have spent four and a half years trying to decide on the solution to a water pollution problem in Williamstown, Massachusetts. In brief, the process went like this: the Town and its engineer, Camp, Dresser & McKee (CDM), suggests review of several alternatives; State counters limiting choices to only a regional sewerage system; USEPA then required review of several alternatives; USEPA then refused to comment on its requirements; State switched position and mandated prosecution of polluters; USEPA refused to comment on State position, but required review of all alternatives <u>except</u> sewerage system; State and USEPA can't agree on grant eligibility of alternatives. At this point, the Town is evaluating its study committee's recommendations for additional funds to study the problem consistent with State and Federal requirements. (A-59)

## II. CHANGING REQUIREMENTS

A. New Jersey Case Histories:

1. In August 1975, the engineer (Malcolm Firnie) initiated Step I planning, using population projections set forth in the USEPA approved Plan of Study. A year later, USEPA advised that the engineer would have to reconcile differences in projections from New Jersey and regional agencies, and eventually was forced to wait an additional seven months for confirmation to use long-awaited 208 Study data instead of originally approved data. Four months later, engineer was still not sure if project would be approved. This represents a two-year delay. There was no assurance that the estimated population finally approved would be any better than that initially proposed. (A-3)

2. Malcolm Firnie's client submitted a technical proposal for a facility plan based upon scope previously outlined by the NJDEP. Six months later, the scope of project substantially changed with State requirements for Combined Sewer Overflow (CSO) monitoring and USEPA requirements for CSO cost-effectiveness evaluations. Another five months pass and USEPA changed its mind with respect to the need to standardize the CSO methodology for the three engineering firms on the job. And, two months later, USEPA finally and reluctantly agreed to the phasing of the CSO work because of the delays that might be encountered. (A-5)

3. According to Fellows, Read & Weber, between 1966 and 1974, five USEPA and State directed studies and reports called for a large regional sewerage treatment system in Ocean County. Those reports were followed by eight separate grant awards from the USEPA and the State amounting to $276 million to effectuate the regional plan.

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After award of these grants, the same agencies which called for a large system proceeded to enforce growth preventive land use programs, revised restrictions against septage systems and changes its regional water quality plan to conflict with its construction grant planning. As a result of these changes and the complexity of the grant process, the plant is about to go into operation and will receive initial flows of only 0.5 mgd instead of the 24 mgd that the agencies had envisioned. (A-43)

4. According to CBA, the USEPA returned a Bergen County Utilities Authority grant application well over a year after submission because of "excessive delays", thus requiring the client to seek the necessary approvals and start the application process all over again. However, the delays were caused in large part by the USEPA since it required numerous changes during the review process that were the result of new regulatory requirements or changes in informal policies. (A-65)

5. The NJDEP made an "informal" change in policy in April 1978 concerning specification format. Despite Malcolm Pirnie's contention that the format would complicate bidding and project inspection, State officials insisted that they "preferred" the new method in order to prevent "one penny" bids. Engineer complied, resubmitted plans and, on two subsequent occasions, submitted addenda to comply with another informal policy decision and with a new regulation. After all USEPA and State approvals were received, bids finally came in late January 1979. The bids included several "one penny" bids. An eight-month delay resulted from an erroneous opinion. (A-1)

6. Because of changing USEPA requirements, a sewerage improvement project in Trenton initiated under contract in July 1973 will require at least 11 supplemental agreements between CBA and the client before the project is completed nearly a decade later. (A-68)

7. A reversal of prior approvals, based on individual judgment, may seriously disrupt progress of a program and result in substantial extra costs. For example, a major Trenton project included a treatment facility, pump stations and interceptors. It was environmentally assessed and USEPA wrote an Impact Statement (1974) accepting this CBA project with some conditions. All interceptor routes were found to be "acceptable" by USEPA. After completion of Step II design, and upon application for Step II, the USEPA Environmental Branch sent a new inexperienced employee to review the routing. He rejected the routing for one interceptor. As of June 1978, new route alternatives have not been acceptable to USEPA, and portions of the collection system could not be connected to the plant which became operational in 1978. (A-75)

8. Boswell Engineering designed a trunk line for the Northwest Bergen Sewer Authority which is being held up because the USEPA wants the Authority to force subscribing municipalities to change their method of billing customers to comply with USEPA regulations which went into effect after the start of the design phase. (A-76)

9. An Engineer (Elson T. Killam Associates) indicated that the deficiencies in project coordination between the NJDEP and USEPA are illustrated by the fact that the Borough of Watchung has received a Step III construction grant for a sorely needed collection system expansion. During the initial years of project planning it was recognized by both USEPA and NJDEP that this Watchung project would have to be coordinated with the North Plainfield interceptor extension project to avoid increasing North Plainfield's already severe raw sewage overflow problem. Therefore, even though Watchung is proceeding with construction of their project, it will not be possible for them to place their new collection of their project, it will not be possible for them to place their new collection system into service until the regulatory agencies approve the Green Brook-Stony

project and construction of this downstream interceptor is completed. (A-77)

10. The engineer (Alexander Potter Associates) and its client, the Linden Roselle Sewerage Authority, were confronted by an unreasonable Ocean Dumping Permit which has created a number of problems including:

- being forced to independently fund the construction of sludge dewatering and disposal facilities in order to meet the ocean dumping deadline, even though the program was supposed to have been federally funded.

- being tied into a schedule which might subject the client to severe penalties even though a large part of the permit schedule is comprised of lengthy agency reviews.

- being forced to meet deadlines which would be inconsistent with reasonable work schedules to comply with USEPA pretreatment regulations. (A-83)

B. New England Case Histories:

1. For about a year and a half, an engineering firm (LEA) worked on a Plan of Study for Orleans, Massachusetts that included certain septage facilities. At a public hearing, and through numerous communications, the client had been led to believe by the USEPA and the State that the septage facilities would be grant eligible, only to find out three months after submittal of the final Plan of Study and Grant Application, that it was not eligible. After the Scope of Work for the same project was resubmitted, an additional year and a half was wasted trying to pin the USEPA, USGS, and the State down as to their geohydrologic requirements in the Plan of Study. After three years and over 40 meetings, telephone calls,

changes in form requirements, letters and document submittals, the Plan of Study still had not been approved. (A-15)

2. In March 1977, the engineer (Whitman & Howard) submitted a facility plan for Hudson, Massachusetts for approval by the State and the USEPA. Since then the agencies have made seven major changes in their requirements. The plan has not yet been approved and based on the most recent turn-abouts could not be approved until the latter part of 1979. (A-50)

3. Since the USEPA's May 1976 grant offer the Seabrook, New Hampshire facility plan has been held up by numerous State and USEPA reviews. Whitman & Howard's records relate more than two dozen letters, requests for information and responses - all indicative of the tedious review process. Because of increased requirements and length of time involved, the project costs have escalated and forced the engineer to recently suggest a grant amendment. (A-52)

## III. ABUSE OF AUDIT PROCESS

A. New Jersey Case Histories:

1. USEPA auditors determined that the amount set forth for the Step 1 Facility Plan was not eligible for grant funding because the preparation of the Facilities Plan "appeared to be covered under the basic lump sum fee". No other reason was given to the engineer (Kupper). (A-9)

2. During the interim audit of a $10 million construction system, the USEPA auditor relied upon an "unnamed engineer." Since this engineer's advice resulted in questions about the funding of certain costs, the engineer (Kupper) asked for the party's name during the response period to ascertain the party's reliability. The auditor refused, claiming the person's identity was "confidential". (A-10)

3. Kupper prepared a Change Order crediting to the contract $0.13/ft for roadway restoration. This was in turn approved by the client's engineer, the client's governing body, and supported by independent paving experts. During the audit, a USEPA engineer determined that the credit should be $0.73/ft. This was subsequently challenged by a 23-year old USEPA auditor who somehow decided that the credit should be $2.41/ft. The latter amount was questioned in the original audit report and revised on the second version of the report to $0.36/ft by the same person who had previously determined that the credit should be $0.73/ft. (A-11)

4. On a $10 million project, which entailed the laying of approximately 60 miles of 8" sewer pipe, it took two months after bids were received to initiate construction on the nine construction contracts involved and nine months to install 95 percent of the sewer

pipe. The audit of the project has taken over two years, and it is still not completed. This is about three times as long as it took Kupper to install 95 percent of the pipe. (A-12)

5. In early 1978, after 97 percent of the project was completed, USEPA initiated a Step 1 pre-award audit on a cost plus fixed fee (CPFF) contract. The auditors indicated they would stay approximately one week and leave. To date the auditor has spend approximately four and one-half man-months of time in Kupper's office and expects to eventually spend at least three more man-months of time of field work, in addition to a considerable amount of time reviewing his work papers. The auditor has stated that he will "not give up until he finds something." To date, he hasn't. (A-13)

6. USEPA audit requested a revised 5700-41 form from Kupper which would incorporate several amendments and should reflect a reduction adjustment in the fixed fee since "the risk is no longer there." (A-14)

## IV. DENIAL OF CONTRACTUAL ARRANGEMENTS

### A. New Jersey Case Histories:

1. Kupper's contract with the client for inspection work based on a lump sum arrangement was rejected by USEPA, not because of regulations, etc., but because of "uncertainties" associated with the work, such as possible weather and equipment problems. USEPA insisted on a cost plus fixed fee arrangement, although the engineer argued that the "uncertainties" would be taken into account on either arrangement. In order to get their own way, USEPA would not permit payment for design services until the matter was resolved. After two months, the engineer was forced to renegotiate with the client. (A-7)

2. CBA entered into a subagreement with Anderson, Nichols to perform a very complicated project in Boston, Massachusetts that would be fairly risky for the engineer, would have a significant impact on the total performance of a major project and would develop technology of national importance. The subagreement included a target profit margin of 20 percent. This is consistent with all other similar projects performed by the engineer. Three months after the engineer submitted his 5700-41 cost summary form to the USEPA, and after most of the work had been completed, the engineer was notified by USEPA that only an eight percent profit margin would be allowed. (A-26)

3. CBA entered into an agreement with the client, Bergen County Utilities Authority, whereby the engineer would be paid based upon a percentage of actual construction costs. The USEPA determined, after completion of the design and award of the contract for construction, that the engineer should return part of its design fee as an overpayment. The procedure was contrary to the

engineer's contract and was not substantiated by any USEPA regulatory requirements. It would also have resulted in a verified loss to the engineer of $1,200,000. Payment to the engineer in accordance with the contract terms would still have yielded no profit to the engineer. (A-33)

ARBITRARY INTERPRETATION OF REGULATIONS (21P)

The NJDEP made an "informal" change in policy in April 1978 concerning specification format. Despite Malcolm Pirnie's contention that the format would complicate bidding and project inspection, State officials insisted that they "preferred" the new method in order to prevent "one penny" bids. Engineer complied, resubmitted plans, and on two subsequent occasions submitted addenda to comply with another informal policy decision and with a new regulation. After all USEPA and State approvals were received, bids finally were made in late January 1979. The bids included several "one penny" bids. An eight-month delay resulted from an erroneous opinion.

The following is an chronological history of this situation:

4/10/78 - State had been advising that a change in specification format would be required in early 1978. The engineer finally received information on these changes and, in his opinion, the required format only complicated the bidding and project inspection. State stated that they "preferred" the new method. One of the alleged reasons was to prevent "one penny" bids. However, to the engineer's knowledge, there was no official departmental ruling.

7/10/78 - Resubmitted plans in revised format, which greatly expanded number of bid items.

8/22/78 - Submitted revisions to 7/10/78 submission, making several minor changes in nomenclature of bid items.

9/12/78 - State approved plans and specifications and sent to USEPA.

10/16/78 - Received notification from USEPA that certain additional changes had to be made by addendum

11/3/78 - Submitted addendum requested on 10/16/78 USEPA letter.

12/7/78 - State approved 11/3/78 addendum.

12/13/78 - Submitted another set of addendum incorporating September 15, 1978 regulation change.

12/19/79 - Received approval to bid.

1/30/79 - Received bids using lengthy complicated bid form and received several "one penny" bids.

The main point of listing this chronology is to illustrate with one specific example how eight months were lost and nothing beneficial was accomplished. Some of these changes apparently were reinterpretations of existing rules. Such changes, which are based on an opinion, in this case proven erroneous, should not be permitted.

CHANGING REQUIREMENTS (22P)

In August 1975, Malcolm Pirnie initiated Step 1 planning, using population projections set forth in USEPA approved Plan of Study. A year later, USEPA advised that the engineer would have to reconcile differences in projections from New Jersey and regional agencies, and eventually was forced to wait an additional seven months for confirmation to use long-awaited 208 Study data instead of originally approved data. Four months later, engineer was still not sure if project will be approved. This represents a two-year delay. There is no assurance that the estimated population finally approved will prove any better than that initially proposed.

The following is a chronological rundown submitted by the engineer dealing with the impact of population projection changes, and the lack of guidance from the agencies:

8/19/75 - Started work on 201 Wastewater Facilities Plan using population projections which were set forth in the Plan of Study approved by USEPA. The projection had been done by grantee.

5/6/76 - Submitted draft of regional inventory containing population projections in Plan of Study.

9/1/76 - Met with USEPA and were advised that population projections would have to be reconciled with State and regional agencies. There were substantially different population projections by each agency.

1/10/78 - Submitted summary of various population projects available from various agencies and requested that matter be settled at meeting. There were great diversities in various projections.

2/10/78 - Met with USEPA and State and was advised that population projections must conform to 208 Study. However, 208 Study not complete and data not available. Also covered other topics such as definition of sewered areas, State land treatment guidelines, effluent requirements and getting project "on track."

7/13/78 - Met with State and received preliminary 208 population projections.

8/2/78 - Received verbal notification that State was revising population projections furnished on 7/13/78.

9/1/78 - Received verbal notifications that State now desired use of 7/13/78 numbers.

9/15/78 - Requested meeting with regulatory agencies to review project. Meeting was arranged for 11/6/78.

1/12/79 - Met with USEPA and State to review project. The 11/6/78 meeting had been cancelled. USEPA agreed to review all submitted work and respond by 3/15/79.

While there were other problems under this project, the lack of coordinated population projections have added about 2 years to completion date.

CHANGING REQUIREMENTS (23P)

Client submitted a technical proposal for a facilities plan based upon scope previously outlined by the NJDEP. Six months later, scope of project substantially changed with State requirements for Combined Sewer Overflow (CSO) monitoring and USEPA requirements for CSO cost-effectiveness evaluations. Another five months pass and USEPA changes its mind with respect to the need to standardize the CSO methodology for the three engineering firms on the job. And, two months later, USEPA finally and reluctantly agreed to the phasing of the CSO work because of the delays that might be encountered.

The following is a chronology of this situation prepared by Malcolm Pirnie:

10/19/76 - Client furnished USEPA and State a technical proposal for 201 Wastewater Facilities Plan for urban industrial area. The technical proposal was based on scope outlined by State in June 1976.

4/11/77 - Grant approved, but contained scope modification for Combined Sewer Overflow (CSO) monitoring.

4/28/77 - Coordination meeting with USEPA and State at which USEPA stated that CSO Study to evaluate cost-effective solutions would be required. This was a substantial change in scope.

9/21/77 - Letter from USEPA stated that each of the three consulting engineers on project could use its own CSO methodology. Initially, there was an attempt to standarize methodology, even though there were different degrees of information and topographic conditions in each area.

11/28/77 - Letter from USEPA agreeing to phased approach to CSO Study suggested by client because of difficulty in estimating engineering costs of later plans of CSO Study.

2/24/78 - After modified scope approved by USEPA and State, client authorized consulting engineers to proceed with CSO Study.

In its 11/28/77 letter, USEPA reluctantly agreed to a phasing of the CSO Study engineering work because of the delay that might be caused later in the study. USEPA also stated that if the client proceeded with completion of the Facilities Plan prior to completion of the CSO Study, the agency would not participate in any costs to modify the Facilities Plan.

This illustrates how, after determining and approving the scope, it was immediately changed at the beginning of the project. If the client had elected to complete the CSO Study first, another year or more would have been lost. It is believed that concurrent work on both projects will reduce the project completion time.

DENIAL OF CONTRACTUAL ARRANGEMENTS (21K)

Kupper's contract with the client for inspection work based on lump sum arrangement was rejected by USEPA, not because of regulations, etc., but because of "uncertainties" associated with the work, such as possible weather and equipment problems. USEPA insisted on a cost plus fixed fee arrangement, although Kupper argued that the "uncertainties" would be taken into account on either arrangement. In order to get their own way, USEPA would not permit payment for design services until the matter was resolved. After two months Kupper was forced to renegotiate with the client.

The following indicates Kupper's chronology of the negotiations for a lump sum fee for construction inspection on a relatively small, well defined job. USEPA refused to permit Kupper to negotiate on this basis, and used the leverage of threatening the client's grant, which forced Kupper to capitulate on this point:

2/16/78 - Kupper provides manpower cost estimates for inspection work to USEPA, which provided the basis of a lump sum fee contained in the contract.

3/16/78 - USEPA letter to client, indicating that because of "uncertainties" associated with the proposed work, such as weather conditions, equipment procurement, contractor difficulties, etc., USEPA insisted on CPFF (cost plus fixed fee) for the inspection. Also, USEPA would not permit any payment for design services until this was resolved, which presented a serious financial burden to Kupper.

3/28/78 - Kupper's response to USEPA stating that "uncertainties" associated with the proposed construction work had been taken into account in determining the required time of completion of the construction contract. Any formal extension of time of completion would

require an extension of the lump sum inspection contract also. A CPFF contract has no more advantage or disadvantage. The only difference is that USEPA would probably not permit a renegotiation of the fixed fee portion, which is singularly unfair, because the fixed fee portion includes real costs to the engineer, although these costs are not recognized by USEPA. Further, Kupper pointed out the fact that its position is onerous in not permitting grant payments for engineering work until the inspection fees were resolved.

4/24/78 - Contract renegotiated with client for CPFF inspection.

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ABUSE OF AUDIT PROCESS (22K)

USEPA auditors determined that the amount set forth for the Step 1 Facility Plan was not eligible for grant funding because the preparation of the Facilities Plan "appeared to be covered under the basic lump sum fee." No other reason was given to Kupper.

The following is from the audit:

Item 5 - Architectural/Engineering - Other Fees

These fees were outlined in the renegotiated contracted dated December 22, 1976 and the engineer's letter of September 3, 1977.

| | Requested Amount | Comment |
|---|---|---|
| a) Archaeological/Historic Survey | $10,820 | All Eligible |
| b) Facility Plan | $37,280 | Not Eligible - Preparation of Facilities Plan appears to be covered under Basic Lump Sum Fee |
| c) I/I Analysis | $ 2,000 | All Eligible |
| d) O&M Manual | $ 7,500 | All Eligible |

Total Amount - $57,600
Ineligible - $37,280
Eligible - $20,320

ABUSE OF AUDIT PROCESS (23F)

During the interim audit of a $10 million construction system, the USEPA auditor relied upon an "unnamed engineer." Since this engineer's advice resulted in questions about the funding of certain costs, Kupper asked for the party's name during the response period to ascertain the party's reliability. The auditor refused, claiming the person's identify was "confidential".

ABUSE OF AUDIT PROCESS (24K)

Kupper prepared a Change Order crediting to the contract $0.13/ft. for roadway restoration. This was in turn approved by the client's engineer, the client's governing body, and supported by independent paving experts.

During the audit, a USEPA engineer determined that the credit should be $0.73/ft. This was subsequently challenged by a 23-year old USEPA auditor who somehow decided that the credit should be $2.41/ ft. The latter amount was questioned in the original audit report and revised on the second version of the report to $0.36/ft. by the same person who had previously determined that the credit should be $0.73/ft.

ABUSE OF AUDIT PROCESS (25K)

On a $10 million project, which entailed the laying of approximately 60 miles of 8" sewer pipe, it took two months after bids were received for Kupper to initiate construction on the nine construction contracts involved and nine months to install 95 percent of the sewer pipe. The audit of the project has taken over two years, and it is still not completed. This is about three times as long as it took to install 95% of the pipe.

| Item | Date | Months Elapsed |
|---|---|---|
| Bids Received | 10/75 | 2 |
| Construction Starts | 12/75 | 9 |
| 95% Pipe Installation | 9/76 | - |
| USEPA Audit Starts | 1/77 | 13 |
| 1st Draft Issued | 2/78 | 2 |
| Response | 4/78 | 9 |
| 2nd Draft Issued | 1/79 | 1 |
| Response | 2/79 | - |

ABUSE OF AUDIT PROCESS (26K)

In early 1978, after 97% of the project was completed, USEPA initiated a Step 1 pre-award audit on a CPFF contract. The auditors indicated they would spend approximately one week, and leave.

To date of this report the auditor has spent approximately 4-1/2 man-months of time in Kupper's office and expects to eventually spend at least 3 more man-months of time of field work, in addition to a considerable amount of time reviewing his work papers.

The auditor has stated that he will "not give up until he finds something." To date he hasn't.

INCREASED LIABILITY TO ENGINEER (27K)

USEPA audit requested a revised 5700-41 Form from Kupper which would incorporate several amendments and should reflect a reduction adjustment in the fixed fee since "the risk is no longer there."

DELAYS INVOLVING CHANGING REQUIREMENTS (11L)

For about a year and a half, Linenthal Eisenberg Anderson, Inc. (LEA) worked on a Plan of Study that included certain septage facilities. At a public hearing, and through numerous communications, the client, Orleans, Massachusetts, had been led to believe by the USEPA and the State that the septage facilities would be grant eligible, only to find out three months after submittal of the final Plan of Study and Application, that it was not eligible. After the Scope of Work for the same project was resubmitted, an additional year and a half was wasted trying to pin the USEPA, USGS, and the State down as to their geohydrologic requirements in the Plan of Study. After three years and over 40 meetings, telephone calls, changes in form requirements, letters and document submittals, the Plan of Study still had not been approved.

The following is a summary of activity on this project:

1. Per Federal Register, 2/11/74

   a. Step 1 work initiated prior to 11/1/74 will be fully reimbursed.
   b. From 11/1/74 to 6/30/75 prior approval will be required with respect to Step 1.
   c. After 6/30/75, Step 1 must be preceded by prior approval of a Plan of Study accompanied by reservation of funds for the grant award.

2. Engineer's Proposal - dated 9/12/74, and signed on 1/9/75.

3. Town Appropriated $15,000 - on 11/7/74 to pay for engineering study of septage disposal.

4. Request for Inclusion on 1976 Priority List - by Town on 4/10/75 under provision of Item 1.b above.

5. Reply Relative to 1976 Priority List - by State on 4/17/75.

6. Public Hearing - on 6/16/75. State responds to inquiry by USEPA relative to eligibility of Step 1 planning for grant funds. State advised Town that upon completion of all 201 facilities planning requirements, the project could be eligible for grant funds utilizing the contingency funds held back for this purpose.

7. Engineer's Report - dated July 1975. Forwarded to State and USEPA on 8/8/75.

8. Reply from State - approval report on 1/7/76.

9. Reply from USEPA - requesting complete 201 Facilities Plan information on 1/16/76.

10. Letter to State from Town Requesting Determination of Eligibility of work done to date, January 26, 1976.

11. FDC Telcon with State - on 2/25/76, wherein they advised engineer that if they prepared a Plan of Study and reviewed the situation with the appropriate regional agency, there should be no problems.

12. Scope of 201 Facilities Plan - outlined to USEPA on 3/5/76.

13. Town Appropriated $30,000 - on 5/3 and 5/4/76 for completion of 201 Facilities Plan.

14. Plan of Study and Step 1 Grant Application - submitted to State 6/23/76.

15. Receive letter from State that Septage Facilities are eligible for State and Federal assistance, 7/6/76.

16. Plan of Study forwarded to 2 regional planning agencies, 7/14/76.

17. Step 1 Grant Application turned down by State for Septage Report is ineligible item, 9/1/76.

18. Step 1 Grant Application resubmitted to State with Septage Report excluded for funding, 9/16/76.

19. Notice of Intent waiver received from A-95 review, 9/28/76.

20. Newly Required USEPA Forms Forwarded - length of time report was in spanned a rule change, 11/9/76.

21. Plan of Study sent to USEPA by the State about 12/13/76.

22. Proposal revised to contain new required time of completion form, 1/11/77.

23. USEPA states they have some problems with scope of work and will set up meeting shortly, 1/18/77.

24. Memo to Engineer from USEPA on review of engineer's plan of study, recommending consultation w/USGS, 3/2/77.

25. Meeting at USEPA offices to discuss Plan of Study and new requirements.

26. Engineer meets with Town to review what must now be done, 3/29/77.

27. Letter from USEPA to Town commenting on their review of grant application and report, 4/7/77.

28. Letter to Town stating we will confer with USEPA and prepare reply to USEPA. Letter from USGS to USEPA due in one week, 5/3/77.

30. Calls to USEPA on USGS data, 5/23 and 5/26/77.

31. Letter from USEPA to Town stating they will return application to State unless satisfactory response is received by 7/15/77. Letter dated 6/27/77.

33. Engineer letter, 6/29/77, commenting on USEPA letter of 6/27/77.

34. Meeting with State and USEPA on 7/7/77 to discuss project status.

35. USEPA letter to Town on 7/8/77 commenting on USEPA letter of 6/27/77.

36. Meeting on 7/22/77 with USEPA, USGS, and geohydrologic consultant to review geohydrologic requirements of USEPA.

37. Letter from State to USEPA, 8/2/77, discussing additional funding requirements.

38. Plan of Study not yet reviewed by USEPA per telephone inquiry, 12/15/77.

41. Letter to USEPA, 12/21/77

42. Telephone call from USEPA on 12/28/77 stating he did not wish a meeting at this time, nor additional data, but that he would be in touch with us shortly.

43. Telephone discussion with USEPA on 2/28/78. Will get letter out okaying POS for geohydrologic study this week.

45. Telephone call from USEPA, 3/10/78. They wish to go back to square one.

46. Meeting at USEPA with State and engineer to discuss project status on 4/5/78. USEPA now desires complete POS for entire facilities plan, including geohydrologic studies.

47. Meeting with Town on 4/10/78 to discuss USEPA requirements for geohydrologic studies throughout Town.

47. Meeting with Town on 4/10/78 to discuss USEPA requirements for geohydrologic studies throughout Town.

. DELAYS CAUSED BY EXCESSIVE REVIEWS (12L)

When requested to indicate the status of a particular sewer system evaluation survey report, a USEPA staff member reported that he did not even know when he would have a chance to review the report.

Such situations are not uncommon and can hold up projects for months.

Specifically, an internal memo from LEA disclosed the following:

"I telephoned (the State) to check on the status of its review of the above referenced project. (He) stated that they have completed (his) review and are waiting for (USEPA) to do the same. (He) indicated, and I have received a similar statement from (USEPA), that he does not know when he's going to be able to sit down and review the report, based on his current backlog of work."

EXCESSIVE TIME FOR NEGOTIATIONS (11E)

Metcalf & Eddy listed eight Step 1 or Step 2 New England projects for which it was awaiting USEPA approval. With the exception of one project which was under review "only" three months, the rest have been under consideration for an average of more than one and a half years.

Also, that average does not take into consideration the fact that for the Step 1 projects (three of the eight under review), several months of review precedes the application in order to make final the Plan of Study.

In five of the eight situations, after nine to eighteen months had passed, the USEPA required an update or revision of the plan, resulting in more delays and more expense.

Fee/profit negotiations and delays related to processing applications were the key problem areas according to this engineer.

The following are the firm's comments:

"In response to your request of December 12, 1978, we have experienced very long delays in the processing of Step 1 and 2 applications. I have listed below, by municipality, the date of the submission of formal application and updates. You should also keep in mind that for Step 1 several months of review preceded the application so as to finalize the Plan of Study.

| Municipality | Step | Date of Submittal Original | Date of Submittal Recent Update |
|---|---|---|---|
| Westfield, Mass. | 1 SSES | 12/1/77 | - |
| Westfield, Mass. | 1 Fa. Pl. | 4/25/77 | 4/28/78 |
| Scituate, Mass. | 2 | 3/2/77 | 7/27/78 |
| Gardner, Mass. | 2 | 3/25/77 | 6/29/78 |
| Wareham, Mass. | 2 | 5/27/77 | 7/21/78 |
| Enfield, Conn. | 2 | 5/31/77 | - |
| Hingham, Mass. | 1 | 9/77 | 6/78 |
| Greenfield, Mass. | 2 SSES | 9/11/78 | - |

As of this date, only the Gardner fee has been negotiated. We do not have a contract or authorization to proceed. To compound matters, we now understand that the project may have to receive an AWT review from headquarters...more delay...

I believe that the two most critical problems today are the delays in processing applications and fee/profit negotiations. If these issues cannot be resolved, then consultants doing USEPA work are in for rough going."

EXCESSIVE TIME FOR TECHNICAL REVIEW (11M)

During the design of a treatment plant, C-E Maguire, Inc. requested the State and USEPA to approve several modifications to key process components. The requests were not reviewed for several months, forcing the engineer to either stop work or take a chance and continue without approval. Instead of being rewarded for moving the projects along, the engineer was penalized because costs related to work done before approval of the modifications were not approved.

It should be noted that the responses were not forthcoming to the requests because of, for example, "pending" policy changes or decisions to wait and "handle everything as a package to reduce time and paperwork."

The following is the engineer's summary of this situation involving excessive delays for review during the design stage:

1. During design of a treatment plant, the engineer sent in a request to the State and USEPA for approval of modification to a particular process component.

2. Several months went by and no notice of approval on first item was formally announced, although both the State and USEPA kept saying approval was no problem. Meanwhile a second item of modification came about also.

3. Of course, Item (1) became an integral part of the final design because the engineer had to take a chance and continue without approval.

4. Approval of Item (2) was held up because of "pending" or potential USEPA policy changes as viewed by Regional offices. USEPA

didn't want to approve something that might not be allowed as soon as the potential new regulation came about. Although the State was ready to approve the revision, they wanted to appease USEPA and not "look bad" and hence, they both delayed forwarding their approval or disapproval. The engineer of course was again forced to continue without approval on Item (2) to keep the rest of the project from suffering.

5. There were other items that developed, and USEPA and State would soon respond that "they want to handle everything as a package to reduce time and paperwork."

6. The ending is all too familiar. Item (1) was approved with no problem, but because the engineer had done the work without approval, he could not be reimbursed for his additional costs. The original people at USEPA and the State were also no longer involved in the project. Item (2) was disapproved for a reason completely unassociated with the pending regulation change and the engineer was left holding the added fee because he had to gamble. The notifications for all items disapproved came in the simple verbal announcement of disapproval.

7. The engineer offered the following suggestions:

a. Pending or possible Federal or State regulation changes should not hold up USEPA or State approvals of work under present laws or regulations.

b. Policy of "grouping" requests only delays responses to initial or original problems.

c. All correspondence should be acknowledged as having been received.

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d. State and USEPA should act concurrently and independently on their own reviews.

e. For change orders, design changes or modification approvals, grant reviews and awards that are delayed longer than three months, the client and the engineer should formally notify why. If the State or USEPA has too much work, even that should be admitted because the client always blames the engineer.

f. Written notification of both USEPA and State's decision and the reason why should be included in a formal letter. The engineer goes through all the required paperwork and isn't even given the courtesy of a professional response to his very real problems.

. DENIAL OF CONTRACTUAL ARRANGEMENTS (15C)

Clinton Bogert Associates (CBA) entered into a subagreement to perform a very complicated project in Boston, Massachusetts that would be fairly risky for the engineer, would have a significant impact on the total performance of a major project and would develop technology of national importance. The subagreement with Anderson, Nichols Co. included a target profit margin of 20%. This is consistent with all other similar projects performed by CBA.

Three months after CBA submitted its 5700-41 cost summary form to the USEPA, and after most of the work had been completed, CBA was notified by USEPA that only an 8% profit margin would be allowed.

The following is the body of a letter from CBA to Anderson, Nichols explaining its position:

"Please refer to your letter of January 23, 1979 advising of [USEPA's] comments concerning our fee on the subject contract. [USEPA's] comments appear to be an arbitrary and capricious misapplication of federal procurement policies, including those established by the EPA, and contrary to the recommendations of the Commission on Government Procurement.

The Federal Property and Administration Services Act of 1949 requires federal procurement consider:

(1) Competition. You are aware of method of selection. We were uniquely correct for this particular assignment.

(2) Contractor Risk. The contract contemplates a lump sum fee and requires the development of new computer pro-

grams. We are currently having problems developing one of these programs, but expect to have the matter resolved in the next week or so. But this does indicate our substantial risk.

(3) Difficulty & Complexity of the Work. Since application of innovative and sophisticated technology is a requirement, the work is both difficult and complex, and also can have far reaching national implications.

(4) Government Assistance to be Furnished. In this instance, no government assistance is expected or contemplated for any of the significant and difficult parts of the work.

(5) Contractors Total Equity and Debt Investment. In any privately owned partnership, such as ours, cash flow is a problem. We have no material suppliers or equipment vendors who can help us finance the largest parts of our costs, i.e., payroll and continuing overhead items. We also do not have access to public funds through stock sales.

(6) Calibre of Contractor's Performance. EPA Region II, which is most familiar with our services, consistently has rated us as providing top level services. As evidence, we are attaching Exhibit 1, which presents EPA Region II's computation of our profit margin under [another project]. This profit margin applies to a CPFF contract, with the fixed fee equalling approximately 19 percent of the estimated costs. We were given the maximum allowance of 8 percent for cost risk and performance.

A reason why we have been acknowledged as being expert in CSO pollution abatement technology is experience gained in our report entitled "Conventional and Advanced Sewer Design Concepts..." This expertise was earned at a substantial cost. Our losses on this job totalled $119,661 in accordance with our audited fiscal reports.

With total profit margins of 8 percent on risky, lump sum jobs, investing this kind of money in developing new technology would be impossible. EPA theoretically wants innovative technology developed. To develop such technology, engineers must be permitted to generate the funds to finance the required investment.

(7) Realism of Cost Estimates. Our cost estimates for this particular assignment have been reviewed by EPA's top professionals in CSO Pollution abatement, and by Region I. These cost estimates may be somewhat low. Their realism will be tested effectively by the time and effort spent in developing the new model applications.

[USEPA's] limitation as to our profit on the lump sum contract appears established in a mechanical and formularized manner. This is a violation of stipulated federal procurement regulations procedure, and will result, in the long term, in serious inequities which can only reduce interest and competition by qualified and responsible organizations.

However, we are continuing with the work which we started several months ago and will complete it. We hope to reach a reasonable conclusion as to the contract amount. Such a conclusion should not be dictated arbitrarily. In accordance with

EPA regulations, it should be based on (1) our assumption of risk, (2) impact on the total performance of a major combined sewer overflow pollution abatement program, and (3) its national importance.

It should consider that we have proceeded in good faith with a signed contract which called for a lump sum of $45,560 which represented agreement of all those who participated in the negotiation. Obviously, since we have completed a great deal of the work at this point, we are in no position to say we won't continue, but we do feel that [USEPA's] approach is punitive to us for proceeding with this very important assignment. Creating a retroactive policy, after the work is done, seems totally inequitable.

Considering this is a lump sum contract and the substantial risks involved, the profit margin shown on our 5700-41 Form dated November 2, 1978 of approximately 20 percent is modest, and perhaps low. We have negotiated fixed fees which average about 20 percent and which have been approved by the EPA for all our various other assignments on CPFF contracts.

We therefore request that a meeting be set up with USEPA and others who can contribue to an equitable decision in order to resolve this matter.

We consider the implications of this issue to be very broad. [USEPA's] apparent arbitrary and capricious stance is significant since it can result in (1) reducing interest and competition by qualified and responsible performers in the very important program being administered by the EPA, and (2) causing hardship on engineering firms attempting to provide appropriate services and result in their being forced out as practitioners.

Because of the importance we attach to this problem, it is worth pursuing until a reasonable judgment is reached. We are of course continuing with the work in accordance with our executed contract."

INCONSISTENT INTERPRETATIONS (26C)

Between October of 1974 and August of 1978, the USEPA and the NJDEP proceeded with the processing of grant applications and with the review of project and technical reports without any indication that the Carlstadt Sewerage Authority - Permanent Pumping Station Project would not be eligible. In August 1978 there was an informal indication to CBA the effect that the project might be ineligible but it wasn't until October of 1978 that USEPA "clarified" its regulations rendering the project ineligible.

The engineer related the following summary:

| DATE | DESCRIPTION |
|---|---|
| 10/23/74 | Step II grant application filed with State accompanied by a project report and technical report which indicated that project would primarily serve on industrial area. (Step I work had been reimbursed under a prior application.) |
| Nov. '74 | State advises the Client that project would be placed on 1975 priority list. |

(Comments: Subsequent to November '74, the Grant Application and priority certification was returned to the Client with instructions that the Client's contract with its consulting engineering firm would have to be renegotiated to meet new USEPA regulations. Thereafter, the Client and engineer renegotiated their contract and resubmitted the grant application.)

| | |
|---|---|
| 5/26/77 | After a lengthy review period, State recertified the Step 2 grant application. |

| | |
|---|---|
| 12/27/77 | USEPA returned application and priority certification to the State indicating that the State would have to recertify the grant application after a stream encroachment permit had been obtained by the Client. The Client directed its consulting engineers to recure the permit. |
| Jan. '78 | Client received letter from USEPA indicating that it would continue review of the application while the stream encroachment permit was being processed. |
| August '78 | Consulting engineers verbally informed by USEPA that project may not be eligible under proposed 40 CFR 35.925-15. Client thereupon requested USEPA to obtain an interpretation from Washington USEPA. |
| 10/17/78 | USEPA informs client that recent amendment to regulation "clarified" regulation and that the project was ineligible because it was intended to serve industrial users. |

(Comments: At no time between October 1974 and August 1978 was any indication given that the project would be ineligible. Naturally, the Client expended a great deal of time and money in the process.)

DENIAL OF CONTRACTUAL ARRANGEMENTS (27C)

CBA entered into an agreement with the Bergen County Utilities Authority whereby the engineer would be paid based upon a percentage of actual construction costs. The USEPA determined, after completion of the design and award of the contract for construction, that the engineer should return part of its design fee as an overpayment. The procedure was contrary to the engineer's contract and was not substantiated by any USEPA regulatory requirements. It would also have resulted in a loss to the Engineer of $1,200,000. Payment to the verified Engineer in accordance with the contract terms would still have yielded no profit to the Engineer.

The following is a further explanation of the engineer's position from a set of comments prepared by the engineer.

"The USEPA Grant Agreement for a Sewage Treatment Plant Expansion sets forth the amount of $2,853,300 as the approved eligible/allowable costs for Architectural Engineering Basic Fees. The Basis for Determination of Costs Approved for Federal Participation, prepared by USEPA and accompanying the grant offer, provided the basis for the approval of this sum. The $2,853,300 sum was computed by USEPA from the multiplication of $48,600,000 x 5.7% x 1.03, where:

$48,600,000 = the estimated project construction cost at the time of the grant award;

5.7% = the apparent approximate percentage of construction cost from curve A, page 30 of ASCE Manual of Practice 45, 1975 edition; and

1.03 = the weighted factor derived by EPA Region II technical personnel, which is based on their interpretation of the following language from ASCE Manual 45, page 34:

> "Alterations and changes to existing structures and facilities necessitate substantially more services than new work. Basic compensation for alteration work may be increased by at least one-third above the median compensation illustrated by curves A and B." (Emphasis added.)

Contrary to the wording quoted above, USEPA Region II personnel construed the ASCE Manual 45 language as limiting the increase in basic compensation for alteration work to no more than one-third above the median compensation set forth in curve A. Under Item 4(a) of its Basis for Determination, Region II further asserted:

> "From the construction cost breakdown submitted, the percentage of the proposed project consisting of alterations and changes to existing structures and facilities is less than 10 percent (on a total construction cost basis). Accordingly on weighted average basis a value 1.03 for this factor should be used in computing this fee."

In Item 2(a) of its April 15, 1976 letter, Region II attempted to reinforce its argument that the fee adjustment factor for alteration work should be no more than 1.03 with the general statement: "we have investigated various comparable contracts for which USEPA grants have been awarded in the State...and have found that no factor has been utilized to adjust curve A in computing basic compensation." No specific project or fee information was revealed concerning the "various comparable contracts" reviewed.

Of the $2,853,300 in Basic Fees approved for the project, USEPA estimated in its Basis for Determination that $1,711,980 should have been attributable to Preliminary Services and Design, with $1,141,320 assigned as the estimated value of the General Supervision of Construction to be undertaken on a cost-plus basis.

On March 27, 1978, USEPA Region II determined that, for purposes of the grant amendment offer, the sum of $2,183,054 would be considered the eligible amount for Basic Engineering Services. This amount represented $36,989,000 x 5.73% x 1.03, where:

$36,989,000 = the bid of the lowest responsive, responsible bidder, to whom the construction contract was awarded on March 10, 1977;

5.73% = the revised apparent approximate percentage of construction cost from curve A of ASCE Manual 45; and,

1.03 = the weighted factor for alteration work derived by EPA personnel, as explained above.

In other words, on March 27, 1978 USEPA Region II reduced the eligible amount for Basic Engineering Services by $670,000 with no change whatsoever in the project. Rather, USEPA based this reduction entirely on the fact that the low bid received was less than the estimated project cost which had previously been accepted as a reasonable estimate by Region II on January 8, 1976 after it had reviewed the engineer's total design effort and final construction contract documents. Thus, USEPA personnel relied upon construction costs to substantially review

their prior determination on eligible engineering fees in spite of their often-stated policy that a percentage-of-construction-costs basis is not a fair and sound basis for determining engineering fees. (See page 6-8 of USEPA's Audit Guide for Construction Grant Program, dated February 1976, which states that a percentage of construction cost basis does not ensure a reasonable price; and compare page 27 of ASCE Manual 45, 1972 edition, which explains why the fees for modern engineering services are often too low when a percentage-of-construction-cost basis is used.)

In view of this reduction by USEPA of the eligible amount for Basic Services, and USEPA's previous determination that $1,141,320 constituted a reasonable estimate of the cost of General Supervision of Construction, the revised amount approved by USEPA for Preliminary Services and Design should be $1,041,730 (i.e., $2,183,050 - $1,141,320 = $1,041,730).

The Client requested USEPA to approve the sum of $2,793,410 as the eligible and allowable amount for Basic Engineering Services for Project C-34-0386-01. This sum was obtained from the project of $36,989,000 x 5.90% x 1.28, where:

$36,989,000 = the bid of the lowest responsive, responsible bidder;

5.90% = the percentage of construction cost determined from curve A of ASCE Manual 45 (Exhibit 5), from the data and assumptions used to draw curve A as set forth in ASCE Questionnaire Analysis Concerning Revision of Manual 45 (dated January, 1975, prepared for ASCE by Turner, Collie and Braden, Inc.), and from the interpolation method set forth in the

USEPA Audit Operations Manual (September 24, 1975); and,

1.28 = the reduced average weighted factor calculated for the alteration work present based on the data set forth herefollowing.

This increase in the eligible amount for Basic Services to $2,793,410 was in accordance with section A.2.b(2) of Appendix D to USEPA Regulations 40 CFR, Part 35, Subpart E, which states:

"...[T]erms of the agreement, including the total amount of compensation and the multiplier, will be evaluated for fairness and reasonableness and consistency with historical and advisory guidelines in general use and acceptable locally such as ASCE Manual 45 or other analyses or data relied upon or utilized by the contracting parties in negotiation of the agreement. Such evaluation shall also consider comparable contracts for which EPA grants have been awarded."

The use of 5.90 percent in computing the basic fee was derived from the ASCE's 1974 survey of engineering cost data, which served as the basis for curve A of ASCE Manual 45, 1975 edition. To gather data for the curve, ASCE sent the questionnaire to engineering firms throughout the nation. Part II.E of the questionnaire asked "[B]ased on your experience, please indicate in the following table the percentages for the various size projects that are necessary to provide [the median compensation necessary to permit you to serve your clients with the degree of technical competence desirable by modern engineering standards]." Listed in the Table that followed were the following eight net construction costs: $100,000; $200,000; $500,000;

$1,000,000; $5,000,000; $10,000,000; $50,000,000; and $100,000,000. Part I.A of the questionnaire asked for the respondent to indicate the "location of home or principal office of firm by ASCE zones," with Zone I including Northern New Jersey and other Northeastern States. As indicated on page 47 of the ASCE Questionnaire Analysis (referred to above), the mean percentage obtained from 94 Zone I firms responding to the $10,000,000 category was 6.13 percent, with a standard deviation of 0.38. Eighty-two Zone I responses to the $50,000,000 category produced a mean percentage of 5.79, with a 0.28 standard deviation. Thus from these historical fee practices in general use and acceptable locally in Northern New Jersey it is apparent that a percentage between 5.79 and 6.13 should be used for a no-alteration, curve A-type project of a net construction cost between $10 million and $50 million. The contracting experience of the nearly 100 first surveyed by ASCE serves as witness to this conclusion.

Because ASCE curve A is merely a sketch providing a smooth transition between eight points representing eight specific net construction costs, a method has to be adopted for determining the percentage to be used where the net construction cost lies between two of the surveyed categories. Section 5 of the part of the EPA Audit Operations Manual (September 24, 1976) entitled "Percentage of Construction Cost Contracts" specifies the method for determining the reasonable eligible percentage and fee for grant purposes in those cases--like the one under discussion--where no method of interpolation is specified in the engineering services agreement. Section 5 provides:

> "INTERPOLATION OF FEE PERCENTAGE. When construction costs, or other basis of compensation, fall between two known points on the fee curve, it is necessary to use interpola-

tion to arrive at the applicable fee percentage. Most engineering agreements specify the use of straight-line interpolation between points. In the absence of a specified method of interpolation, the use of the straight-line method will result in slightly higher but insignificantly different, amount of allowable costs." (Emphasis added.)

A straight-line interpolation between the respective percentages used in Northern New Jersey for net construction costs of $10 million and $50 million produces a percentage of 5.90 at the contract bid price of $36,989,000. Although the 5.90 percent figure is slightly higher than the 5.73 percent figure approved by USEPA Region II (.0590 - .0573 = .0017; .0017 = 3% of 5.73%), this difference is, according to the EPA Audit Operations Manual, insignificant for purposes of determining allowable costs on grant projects. Therefore, the use of 5.90 percent is within the range of reasonableness and should have been approved.

The reasonableness of the 5.90 percent figure is further reinforced by the cost curves published in the Manual of Information on Consulting Engineering Services and Fees, 1973 edition, published by the New Jersey Society of Professional Engineers. An analysis of these curves indicates a percentage of approximately 6.2 would be appropriate for the basic engineering fee for the project under discussion.

As noted in a memorandum submitted by the Owner to USEPA Region II, "historical and advisory guidelines in general use and acceptable locally" support the use of the 1.28 factor for projects involving alterations to existing projects, rather than the 1.03 limit proposed by USEPA Region II. Not only does ASCE Manual 45 state, at page 34, that the "[b]asic compensation for alteration work may be increased by at least one-third above

the median compensation illustrated by curve A..." (emphasis added), but Article III.B of the NJSPE Manual of Information on Consulting Engineering Services and Fees, referred to above, also provides: "[t]he fee for alterations should be 30 to 50 percent higher than the fee for new work of the same construction cost" (emphasis added). Certainly, in view of these historical and advisory guidelines, it is appropriate to use a 1.28 factor in this situation where 93 percent of the construction project structures (by cost) are affected to varying degrees by alterations and changes required to achieve a compatibility between existing and new structures. Moreover, the analysis of the additional design effort related to alterations indicates that, in some instances, this additional effort was approximately 200 percent more work than would be expected for similar no-alteration designs.

Furthermore, the extent of alterations, and the likelihood that the design costs for alterations might greatly exceed ASCE-reported median design costs experienced for "no alteration" work, were factors considered during negotiation of the contract for engineering services. In light of the pertinent guidelines and project data, noted above, which were relied on during contract negotiations, the 1.28 factor should have been accepted.

Also, if USEPA desired to base its determination regarding the applicability of a factor less than 1.28 primarily on other "comparable contracts," then the Client should have been given the opportunity to review in detail the scope of work and fee structure of those contracts and point out the difference between those projects and the one under discussion. It should be noted, however, that the practice of comparing one alteration project with another for the purpose of ascertaining the reasonableness of the fee factor is a questionable practice;

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each such project has its own particular design problems and cannot easily be compared with others.

Approval of $2,793,410 as the eligible amount for Basic Engineer Services was also justified in light of several other considerations.

First, $2,793,410 is over $59,000 less than the basic engineering fee set forth in the grant agreement, approved by EPA after it had thoroughly reviewed the engineer's design effort and construction contract documents.

Also, the fee negotiated under the engineering services agreement in January, 1974 did not contemplate the extensive project requirements which were promulgated by USEPA and made applicable, sometimes retroactively, to this project. In fact, USEPA Region II's reversal of its decision on the applicability of the December 17, 1975 regulations to the project design and its insistence, after invalidating the first set of bids, that Appendix C-2 to 40 CFR Part 35 Subpart E be inserted in the construction contract has worked to the detriment of the Authority in obtaining approval of the eligibility of a reasonable level of basic engineering fees. This happened because Appendix C-2 revised the construction contract to permit the contractor to collect more compensation than usually allowed by the Authority for extra work due to changes, differing site conditions, delays, etc. Since Appendix C-2 reduced the contractor's risk, it is not surprising that the second advertisement brought in a low bid approximately $1.7 million less than that produced by the first set of construction contract documents. (It should be noted that using the low bid price of $38,677,100 obtained at the first bidding, in conjunction with the analysis above, would result in a sum of $2,793,410 for Basic Engineering Services with a factor for alteration work of only 1.22. Of

course, the ASCE fee curves were not based on the bidding conditions imposed by the 1975 USEPA Regulations.

In addition to the reasons mentioned above, further justification for increasing the eligible and allowable amounts for Basic Engineering Services could be found from a review of the actual costs incurred by the engineer. The report by the engineer's auditing firm on the engineer's actual costs of only the design work through December, 1976 verified that these actual costs were $2,265,911.50. (It is important to note that these costs were not due to inexperience of the Client's design consultants, who have successfully designed many sewage treatment plant facilities over the past 50 years.) Nevertheless, USEPA's recommended sum for all Basic Engineering Services, including Preliminary Services and Design as well as General Supervision of Construction, was merely $2,183,050. In other words, USEPA's recommendation could be viewed as acceptance by USEPA of an eligible sum for design that was in fact $83,000 less than the engineer's base costs for design, and the acceptance of no sum whatsoever for the eligible costs of General Supervision of Construction. Viewed another way, the sum of $1,041,730 now approved by EPA for Preliminary Services and Design was over $1,200,000 less than the engineer's actual costs for this work. Viewed either way, the USEPA recommendation was grossly inequitable and outside the ambit of reasonableness and should have been revised to take into account the true costs of these services."

INCONSISTENT REQUIREMENTS (21F)

Between 1966 and 1974, five USEPA and State directed studies and reports called for a large regional sewerage treatment system in Ocean County. Those reports were followed by eight separate grant awards from the USEPA and the State amounting to $276 million to effectuate the regional plan. After award of these grants, the same agencies which called for a large system proceeded to enforce growth preventive land use programs, revised restrictions against septage systems and changed its regional water quality plan to conflict with its construction grant planning.

As a result of these changes and the complexity of the grant process, the plant is about to go into operation and will receive initial flows of only 0.5 mgd instead of the 24 mgd that the agencies had envisioned.

The following was described by Fellows, Reed & Weber as an "example of regulatory agency fiasco":

1. Original concept of regional system was the end product of a series of governmental decisions that culminated in a 1966 "Master Plan for Wastewater Management..." This study was funded and approved by a State agency.

2. The concept of this Regional Sewerage System, including its service area, was confirmed in the Federal Enforcement Action taken in 1967 by the USEPA's predecessor agency.

3. The requirements of the 1967 Master Plan and the 1967 Federal Enforcement Action were again confirmed and even expanded as a result of the USEPA "Water Quality Standards Setting/Revision Conference for the New Jersey Atlantic

Coastal Area that was conducted jointly by USEPA and NJDEP in June 1972. Said Conference further defined the size and make-up of the service area of the regional authority, the degree of treatment required and the effluent receiving waters.

4. In June 1973, the New Jersey Department of Environmental Protection issued the "Interim Plan for Wastewater Management/Water Pollution Control..." This plan, commonly referred to as the "Basin Plan," also emphasized that the concept for regional sewerage systems should transcend political boundaries and utilize topographical watersheds or drainage basins as the basis for constructing and operating regional systems. The service areas delineated in the Basin Plan are identical to that defined previously by USEPA and NJDEP. It is interesting to note that said Basin Plan was primarily prepared by the NJDEP Division of Water Resources. The Basin Plan was approved by the USEPA on September 6, 1973 and became the required Master Plan for sewerage facilities within the region.

5. The concept of the proposed regional sewerage system was extensively reviewed by the USEPA during the environmental impact evaluation as reported in the USEPA final report of October 1974 titled, "Environmental Impact Statement on a Wastewater Treatment Facility's Construction Grant for the Central Service Area..." This Environmental Impact Statement reconfirmed the original scope of the Authority's Central Service Area.

This Environmental Impact Statement extensively reviewed the Authority's population projections for the Central Service Area system. In fact, the USEPA retained the State of New Jersey Department of Community Affairs to develop

an independent population projection for the Central Service Area. This study confirmed the Authority's projections except for the townships where the State projections were significantly higher. As a result, this Authority was required to design its facilities to accommodate the higher State projections.

6. On February 21, 1974, the Authority received a "Step II" grant from the USEPA to prepare the final plans and specifications of the regional sewerage system for the Authority's entire Central Service Area in accordance with the requirements of the NJDEP/USEPA Basin Plan and the USEPA Environmental Impact Statement. Prior to the receipt of the grant, the grant application was certified for funding by NJDEP to the USEPA as is required by NJDEP/USEPA regulations. On April 28, 1975, the Authority was awarded the matching NJDEP Step II Grant for the preparation of the final plans and specifications.

7. Since 1973, in eight separate grant awards from NJDEP and the USEPA, this Authority received over $276 million in Federal and State grants to construct the required regional facilities.

With this background of planning based on Regulatory Agency requirements and blessed by Regulatory Agency approvals, it would appear that the Authority's Central Service Area would be a successful project. It is not!

The 24 mgd capacity treatment plant is scheduled to start up with approximately 0.5 mgd of sewage flow. The Authority is requesting a Water Diversion Permit to augment the flow with approximately 2 mgd of river water simply to be able to convey it to the plant and through the treatment process.

What happened? Basically, the Regulatory Agencies have reversed their original direction and put impossible road blocks hindering the effective completion of the project. Note that in the foregoing point 5, the New Jersey Department of Community Affairs developed an independent population projection that was higher than that projected by the Authority. They also stated the methodology of population projection utilized by the Authority was superior to any other study they had reviewed. However, the net effect of all of Governmental and Regulatory Agency actions since that time have delayed the population growth considerably and may even have permanently reduced the potential flow to the plant indefinitely. Following is a list of major impacts which do not even include many bureaucratic tie-ups which have delayed completion of facilities necessary to provide flow to the system:

A. Stringent management of the Wet Lands Act of 1980 which has resulted in virtually no building permits though the Act does not prohibit development but seeks to control it.

B. CAFRA Act of 1973 which has had a devastating impact on development in the drainage basin. Under this Act, some Step II funded interceptors have been challenged by environmental groups and construction has been held up indefinitely while permit appeals go on endlessly. Many developers who were awaiting the sewer interceptors have been economically hurt.

C. Development of Pineland protection areas which resulted in the Pineland Moratorium of 1979. Not only planned development is in question but also ongoing construction projects.

D. 208 planning that was completed well after Step II and many Step III projects and now conflicts with the original 201 grants. Both NJDEP and USEPA environmentalists are now trying to modify the approved 201 plans to comply with these late studies.

E. Reduction of funding to collection systems by new rules of eligibility and a reversal of the direction to eliminate point sources of pollution and allow septic systems to remain.

F. Re-evaluation of interceptor routing by the environmental branches of both NJDEP and USEPA after initial approval which has caused delay and sometime shortening of interceptors.

G. Delays in the State Historical Preservation Officer process.

H. Because of revision in Regulatory Agency funding policy, some collection systems do not have the economic capability of building a system and thus are not providing flow to the original system although capacity is reserved for them.

With all of the above listed as well as other smaller but significant impacts, the growth of the Central Service Area was reduced to a minimum, below the contemplation of the very Regulatory Agencies who had demanded a regional system to remedy the pollution potential of the planned growth of the time. The delays have hurt if not destroyed the economic feasibility of the development for which the conveyance and treatment system was built.

After the Impact Statement was written by USEPA and reviewed by every possible government agency involved, the Authority had every

reason to believe that their project including the contributing collection systems, would have clear sledding to be constructed as a complete system. Yet, the Federal and State governments funded a system which they are not willing to let the Authority complete to flow contributing areas and have severely restricted the planned growth that was the basis for the funding.

DELAYS CAUSED BY EXCESSIVE REVIEWS
AND CHANGING REQUIREMENTS (11W)

Whitman & Howard Inc. charted five Step 1 (planning) projects and five Step 2 (design) projects that have been submitted to the USEPA for final review. The Step 1 projects have been waiting an average of more than eight months; the Step 2 projects more than 22 months.

The engineer submitted the following information to demonstrate USEPA/State project approval delays:

| Client | Approval Requested/ Step * | Date Planning Documents Submitted | Date Approval by USEPA |
|---|---|---|---|
| Attleboro, Mass. | P&S (2) | 8/21/78 | - |
| Gloucester, Mass. (Bass Rocks) | P&S (2) | 9/08/78 | - |
| Gloucester, Mass. (Brier Neck) | P&S (2) | 9/08/78 | - |
| Hudson, Mass. | F.P. (1) | 5/13/77 | - |
| Nantucket, Mass. | F.P. (1) | 11/01/76 | - |
| Westwood, Mass. | P&S (2) | 5/28/77 | - |
| Yarmouth, Mass. | F.P. (1) | 2/10/77 | - |
| Seabrook, N.H. | F.P. (1) | 1/16/78 | - |
| Augusta, Me. | P&S (2) | 3/28/78 | - |
| Wells River, Vt. | F.P. (1) | 8/02/77 | - |

*P&S - Plans and Specifications; F.:. - Facilities Plans

DELAYS CAUSED BY CHANGING REQUIREMENTS (12W)

In March 1977, Whitman & Howard submitted a facility plan for Hudson, Massachusetts for approval by the State of Massachusetts and the USEPA. Since then the agencies have made seven major changes in their requirements. The plan has not yet been approved and based on the most recent turn-abouts could not be approved until the latter part of 1979.

The engineer offered the following summary of the State's and USEPA's Review of this Facilities Plan:

March 4, 1977 - Facility Plan submitted to State

May 10, 1977 - First State Review Meeting

1) Major Point - Ammonia Removal now required.
   Result - Plan Revised
2) Major Point - State and USEPA want I/I Study expanded to identify High Inflow Sources

June 22, 1977 - Facility Plan resubmitted with resolution of comments re: May 10, 1977 review

October 4, 1977 - Second State Review Meeting

1) Major Point - Dispute over a user's requirements must be resolved.
   Result - STP redesigned to include user.
2) Major Point - Revise Plan "Costle Memo"
   Result - Lateral Sewers now ineligible (no septic tank study needed).

February 24, 1978 - Facility Plan resubmitted. October 4, changes incorporated

March 2, 1978 - Telcon from State - minor questions

April 13, 1978 - Engineer submits answers to 3/2 questions

May 15, 1978 - State approval of Facilities Plan

January 8, 1979 - Review Meeting with USEPA

1) Major Point - November 7, 1978 Rhett Memo - Plan must have a Washington review of AWT Proposal.
   Result - will delay project and grant offer (Step II) up to six months.
2) Major Point - USEPA will not accept 3.0 mgd design capacity.
   Result - STP must be redesigned - possible of funding only upgrading AWT - no expansion.
3) Major Point - Costs now two years old must be updated important for AWT review.
   Result - Total change in Federal, State and Local funding.

DELAYS CAUSED BY EXCESSIVE REVIEWS (13W)

Since the USEPA's May 1976 grant offer the Seabrook, New Hampshire facility plan has been held up by numerous State and USEPA reviews. Whitman & Howard's records relate more than two dozen letters, requests for information and responses - all indicative of the tedious review process.

Because of increased requirements and length of time involved, the project costs have escalated and forced the engineer to recently suggest a grant amendment.

The engineer offered the following summary of the State and USEPA's review of a facilities plan:

May 18, 1976 - USEPA Grant Offer.

January 26, 1977 - Engineer Telcon (w) State re: submission of Draft Facilities Plan prior to Hearing.

February 11, 1977 - Engineer letter to State re: submission of Draft Facilties Plan.

March 28, 1977 - Engineer letter to State re: engineer desires to proceed to public hearing.

April 5, 1977 - State letter to engineer re: go ahead and make additional outfall comment.

April 22, 1977 - Engineer letter to State re: advise of stop work until further State directioning.

April 26, 1977 - State letter to engineer re: report comments.

April 29, 1977 - State letter to engineer re: report - continuation of work.

May 4, 1977 - State letter to engineer re: report - additional comment.

June 9, 1977 - Engineer letter to State re: report - our response.

June 23, 1977 - State letter to engineer re: report - additional comment.

June 30, 1977 - Engineer letter to State re: report - revised document resubmitted (based on comment to 6/9).

July 11, 1977 - Engineer letter to State re: report - reply to 6/23 New Hampshire letter.

July 27, 1977 - State letter to engineer re: report - additional comments.

August 10, 1977 - Engineer letter to state re: report - follow-up.

August 26, 1977 - State letter to engineer re: report - aproval of draft ready to go to Hearing.

November 16, 1977 - Advertisement for Public Hearing.

December 14, 1977 - Public Hearing.

January 16, 1978 - Engineer letter to State re: report - submission of Final Report and Transcript.

January 19, 1978 - State letter to engineer re: report - request for information:

(1) A-95 in accordance with 7/8 & 19/76 State letters.
(2) Town letter.

February 23, 1978 - A-95 Sign-off to Town.

April 27, 1978 - State letter to USEPA approving Facilities Plan.

August 7, 1978 - Engineer telcon to USEPA requesting status of USEPA Step 1 Review.

August 8, 1978 - Town letter to USEPA requesting Report on USEPA Review.

September 1, 1978 - USEPA reply letter to Town indicating that upon completion of Report Review, USEPA would consult with State before doing anything else.

October 13, 1978 - USEPA comment letter to State (included as an attachment to).

October 19, 1978 - State letter to engineer requesting action on USEPA letter.

October 20, 1978 - Town letter to engineer requesting immediate attention to resolving USEPA 10/13/78 letter issue.

October 31, 1978 - USEPA/State meeting and State letter to engineer concerning USEPA Facilities Plan comments.

November 22, 1978 - Engineer letter to State submitting first and final partial payment request (100%).

November 30, 1978 - State letter to USEPA requesting payment.

December 15, 1978 - Engineer letter to State addressing USEPA 10/13/78 letter and 10/31/78 joint meeting results. Engineer suggests grant amendments to cover costs of increased scope of work requested by USEPA 10/13/78 letter.

January 3, 1979 - Engineer telephone call to State regarding status of state comment on engineer 12/15/78 letter.

COST INCREASES CAUSED BY MINOR CHANGES (11D)

Massachusetts and USEPA waited and refused to decide on request for reimbursement for two reports for a period of nearly a year and a half. In addition, USEPA has changed various regulatory requirements resulting in more work and higher costs. Rather than being permitted to raise its fee, Camp, Dresser & McKee, Inc. (CDM) has been asked to lower it and to change the fee to a cost plus fixed fee method. Since the client, Andover, Massachusetts, has been forced to vote three times to approve changes and increases, it is not likely that the town will go along with any more revisions.

The engineer related the following chronology:

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| Spring 1977 - | Town voted its share of funds for Step I study. |
| 6/24/77 | Step I grant application ($80,000) submitted to State (including a request for reimbursement for two previous reports). |
| 6/27/77 | Grant application returned to town. State required rewording of local funding appropriation. No indication was given by State that cost of previous reports were not eligible for reimbursement. |
| 11/4/77 | Town reappropriated funds with revised wording. |
| 12/6/77 | Grant application resubmitted to State with revised fee ($95,000) to include collection sewer eligibility requirements. |

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| 12/7/77 | State indicates by phone that previous reports probably not eligible for federal grant reimbursement. |
| 1/25/78 | Town requests ruling from USEPA on eligibility of two previous reports. |
| 3/9/78 | USEPA letter to town regarding report eligibility saying they will reserve decision until they receive grant application from State. |
| 3/13/78 | Additional copies of two reports submitted by engineer to USEPA at their request. |
| 4/25/78 | Town again voted appropriation (increased in case earlier report costs were not deemed reimbursable - State did not make decision by meeting time). |
| 8/31/78 | State notifies town that USEPA has determined two reports are not to be eligible for reimbursement. |
| 9/25/78 | Town resubmits grant application forms including appropriation of additional funds to cover increased local share due to reports not being eligible. |
| 11/21/78 | USEPA requests minor wording changes in application. |
| 11/22/78 | Changes made and resubmitted to USEPA. |
| 12/4/78 | Step I grant not yet offered by USEPA. |

General Comments

Eighteen months have gone by. The $95,000 fee proposed 12/6/77 is now one year old and does not include additional work needed to meet new USEPA regulations which became effective last fall (public participation, water conservation, etc.).

There is no way to have the $95,000 increased (except maybe through a town meeting next May). Having already voted three times, this possibility for a Town increase in fee is slim and the consulting engineer is now faced with doing more work than anticipated at a fee that is already one year old.

Additional happenings since 12/4/78:

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| 12/7/78 | USEPA requests further minor wording changes in application. |
| 12/27/78 | Modified (from USEPA wording) changes made and resubmitted to USEPA. |
| 1/2/79 | USEPA requests revision in fee percentage on direct labor and expenses and change to CPFF. |
| 1/4/79 | Engineer forced by USEPA to agree to: |

(a) reduce fee

(b) change lump sum to CPFF or Town will not receive a grant.

DELAYS CAUSED BY INCONSISTENT REQUIREMENTS (12D)

The USEPA and the State of Massachusetts have spent four and a half years trying to decide on the solution to a water pollution problem in Williamstown, Massachusetts. In brief, the process went like this: Town suggests review of several alternatives; State counters limiting choices to only a regional sewerage system; USEPA then required review of several alternatives; USEPA then refused to comment on its requirements; State switched position and mandated prosecution of polluters; USEPA refused to comment on State position, but required review of all alternatives except sewerage system; State and USEPA can't agree on grant eligibility of alternatives. At this point, the Town is evaluating its study committee's recommendation for additional funds to study the problem consistent with State and Federal requirements.

The following is the account by the engineer (CDM) of the State and Federal agencies' inability to decide on a solution to a local pollution problem:

Sequence of Events

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|---|---|
| August 29, 1974 | The State advised the town that there was a local pollution problem. The State recommended they take adequate measures to correct this problem. |
| May 5, 1975 | The State advised the town that wastewater was being discharged into a brook due to failure of the individual sewage disposal facilities. |

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| June 10, 1975 | The State advised the town that they would not approve any discharges into the brook and gave the town two alternatives - "Condemn the polluters or provide a municipal sewerage system". |
| November 19, 1975 | A long range planning group was established by the Town to study the wastewater problem. |
| June 15, 1976 | The town's consultants provided the town with a proposal outlining the work required to prepare a facilities plan. |
| July 20, 1976 | The town held a special town meeting and voted 100% funding of the facilities plan. |
| July 1976 | All town officials involved required that the alternatives to be studied become a part of the engineering agreement. Twelve alternatives were included in the engineering agreement. |
| August 3, 1976 | The State was advised of the engineering cost related to said project and an eligibility determinstion was requested. |
| August 6, 1976 | Engineering agreement was signed between the engineers and Town. |
| October 1976 | A Step I Grant Application was submitted by the Town. |
| October 27, 1976 | The Town and its engineers conducted an impute public hearing, and although they in- |

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| | vited Federal and State officials, none showed up. |
| February 4, 1977 | Facilities Planning Report was completed by the Town's engineers. |
| February 23, 1977 | Public hearing held on the report. State and Federal officials were invited, but none attended. |
| March 1, 1977 | Facilities report submitted to the State and USEPA and the possibility of Step II funding was requested. |
| April 14, 1977 | Step I grant approved by USEPA. |
| May 23, 1977 | The Town requested a decision from the State relative to designing alternatives and information on eligibility of any other options to the Town. |
| May 24, 1977 | Town executed grant agreement forms and submitted them to the State. |
| May 31, 1977 | An answer from the State advised that the only viable and equitable solution was for a sewage collection system and disposal to the regional treatment plant as was recommended. |
| June 6, 1977 | Town engineers were authorized to prepare a Step II grant application for the local problems. |
| June 20, 1977 | The State, in a letter to the Town, stated that in their opinion the recommendations of |

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| | the facilities plan were the most cost-effective and the best alternative. |
| June 30, 1977 | A Step II grant application was submitted by the Town to the State for the sewage collection system design. |
| July 1977 | USEPA Washington answers May 23rd letter from Town stating that further alternatives must be considered before facility plan would be approved. |
| July 26, 1977 | A letter to USEPA Regional Administrator from the Town requested fundability of further studies per USEPA's July 1977 letter. |
| August 11, 1977 | Letter from USEPA Regional Administrator to the Town stating that the Town must comply with USEPA's letter from Washington of July 1977 and that eligibility for a grant participation and any further studies would be determined later. |
| October 14, 1977 | Letter to Town from USEPA stated that the Step II grant application has been denied since new regulations have now been promulgated. |
| February 1, 1978 | USEPA answers requests from the Town relative to newspaper articles and alternatives. USEPA stated that they could not comment on the situation, however, the Town should complete the fatilities plan as per the USEPA Washington letter of July 1977. |

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| April 1978 | USEPA Permits Section sends letter to Town requesting status of certain discharge permits. |
| May 11, 1978 | Town answers USEPA requesting job site meeting to determine what actions have to be taken. |
| May 19, 1978 | The State advised the Town that any further meetings would be useless and the Town should condemn all commercial and residential polluters. |
| June 15, 1978 | Meeting held at USEPA Regional offices relative to the status of the project. A representative was also in attendance from USEPA Washington. No conclusions reached. |
| July 18, 1978 | USEPA representative from Washington visited the Town and reviewed the situation. |
| August 14, 1978 | USEPA Washington sends letter to Town again reiterating multi-alternatives to be studied, in effect suggesting everything except a sewer line. |
| August 29, 1978 | Town engineers requested to contact the State requesting their comments on the USEPA Washington August 14, 1978 letter. |

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| September 21, 1978 | USEPA Region contacts State relative to answering the questions raised in the August 14, 1978 USEPA Washington letter. |
| October 5, 1978 | State sends letter to Town relative to comments on the August 14, 1978 USEPA letter, with many questions on the approvability by the State of some of the alternatives discussed. |
| November 8, 1978 | EPA Region writes a letter to Town suggesting that they appropriate additional funds to study more alternatives. |
| November 1978 | The Town has requested payment of the Step I facilities plan. |
| November 1978 | The Town has established a committee for further investigate alternatives in the problem area. |
| December 13, 1978 | The Town sent out correspondence to all property owners in the area notifying them of the present situation, outlining the study committee and the Town's decision to seek additional funds at a special Town meeting or the regular Town meeting to study additional alternatives. |

**General Comments**

Four and one half years have been spent in frustration over conflicts between State and Federal opinions on how to solve a local water pollution problem.

**DELAYS FROM OVERREGULATION (24C)**

The USEPA returned a grant application well over a year after submission because of "excessive delays," thus requiring the Client, the Bergen County Utilities Authority, to seek the necessary approvals and start the application process all over again. However the delays were caused in large part by the USEPA since it required numerous changes during the review process that were the result of new regulatory requirements or changes in informal policies.

| DATE | DESCRIPTION |
|---|---|
| 10/11/77 | Grant Application sent to State and USEPA. |
| 11/10/77 | Date of State certification. |
| 11/21/77 | USEPA receives Grant Application. |
| 2/14/78 | Meeting at USEPA. USEPA represents initial review comments. Includes instruction to add non-flood-plain sites study task to application. |
| 2/28/78 | Telephone call between USEPA and engineer (CBA) confirms transfer of Septage Disposal task to this application. |
| 3/16/78 | USEPA letter summarizes comments and added tasks. |
| 5/13/78 | Client letter responds to comments and mentioned need for grant amendment for cost adjustments attributable to a deferred start. |

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| 6/9/78 | USEPA letter requests a revised Grant Application and makes some additional inquiries. |
| 7/20/78 | USEPA letter warns owner to submit revisions. |
| 8/8/78 | Revised grant application sent by owner to State with copy to USEPA. |
| 8/8/78 | Client letter to USEPA responds to 6/9/78 inquiries. |
| 8/23/78 | USEPA letter requests inclusion of innovative and alternative processes and extra environmental studies. |
| 9/7/78 | Engineer telephone call to USEPA suggests procedural change in grant application review so that approval can be expedited. USEPA declines the suggestion. |
| 9/15/78 | USEPA letter requests prompt response to 8/23/78 letter. |
| Late Sept. 1978 | Client and engineer telephone calls to USEPA explain delays resulting from environmental subcontractor's revisions to his scope and costs. |
| 9/26/78 | Meeting. Revised grant application is delivered to USEPA. (8/8 transmittal had been lost) |
| 10/12/78 | Client transmits application revisions which address USEPA's 8/23/78 requests. |

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| Mid-Oct. 78 | USEPA makes telephone request for reuse of prior studies data to effect a reduction in project scope and costs. |
| Early Nov. 78 | Telephone calls between USEPA, client and engineer to clarify specifics of USEPA's mid-Oct. request. |
| 11/17/78 | Client transmits revised page of application regarding tunneling consultant work. |
| 11/2/78 | USEPA advises owner that project would be decertified because of "excessive delays". |
| Early Dec. 78 | USEPA returns application to State. |

Current Status

Application is with State awaiting their recertification, but State is not acting on this because they are awaiting USEPA's final action on project scope and costs. USEPA, however, no longer possessing a certified application though claiming their review is continuing is not producing on letters, or communication about their review.

DELAYS FROM OVERREGULATION (21C)

Because of changing USEPA requirements, a sewerage improvement project in Trenton, New Jersey initiated under contract in July 1973 will require at least eleven supplemental agreements before the project is completed nearly a decade later.

The following is the engineer's summary of engineering services agreements between CBA and the City required under a sewerage improvement program:

| TITLE | DATE | DESCRIPTION |
|---|---|---|
| Contract | 7/16/73 | Main Agreement for upgrading STP. |
| Supplemental Agreement | 9/16/74 | Addition of work on Combined Sewage Detention Basin, Interceptor and Sewer Separation. |
| Supplemental Agreement No. 2 | 8/5/76 | Addition of work on Combined Sewage Detention Basin, Interceptor and Sewer Separation. |
| | | Renegotiation (to comply with 12/17/75 USEPA regulations) for Step 2 work on above facilities. |
| Supplemental Agreement No. 3 | 3/3/77 | Renegotiation for Step 1 work on Sludge Treatment and Disposal Facilities. |

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| Supplemental Agreement No. 4 | 6/16/77 | Renegotiation of S.A. 2 to conform Agreement to USEPA postponement of grant funds for Interceptor and to changed USEPA requirements regarding Value Engineering and Appendix C-1 to 40 CFR Part 35. |
| Supplemental Agreement No. 5 | 7/14/78 | Renegotiation to set forth revised costs for services on Step 2 design of STP, Interceptor, VE-required modifications and additional SSES, and EPA auditor's approved overhead rates. |
| Supplemental Agreement No. 6 | (Proposed) | Renegotiation for Step 3 work on Sewer Separation. |
| Supplemental Agreement No. 7 | (Proposed) | Renegotiation to set forth costs for Sludge Dewatering tests. |
| Supplemental Agreement No. 8 | (Future) | Renegotiation for Step 2 work on Sludge Treatment and Disposal Facilities. |
| Supplemental Agreement No. 9 | (Future) | Renegotiation for Step 3 work on STP and Combined Sewage Detention Basin. |

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| Supplemental Agreement No. 10 | (Future) | Renegotiation for Step 3 work for Interceptor. |
| Supplemental Agreement No. 11 | (Future) | Renegotiation for Step 3 work on Sludge Treatment Disposal Facilities. |

DELAYS CAUSED BY EXCESSIVE REVIEWS (22C)

Because of backlog in USEPA review process, the engineer (CBA) was forced to perform various phases of Value Engineering work without prior approval from USEPA. Not to do the work would have held up this Trenton, N.J. project for close to a year. While USEPA personnel informally agreed with the logic of "getting on with the job," they were powerless to give formal authorization.

The following is the actual sequence involved in the Value Engineering process for a project:

4/7/77 Fifteen months after completion of Step 1, a Step II grant awarded by the USEPA.

4/19/77 The engineer proceeded with design of the Sewage Treatment Plant facilities.

8/25/77 Value Engineering service contract was signed and forwarded to the client for review (total amount for the work in substantial concurrence with the amount in USEPA Step II grant).

9/26-
9/30/77 Initial Value Engineering Review session held at the 25% completion point.

10/7/77 Informal meeting between the engineer and USEPA concerning the VE review. Although the 5% contingency on the cost of engineering services was deleted by USEPA from the original Grant application, the engineer estimated there were sufficient funds in the Grant and contract to cover the cost of the present re-design work, and proposed to start

the work immediately. This avoided an approximately four month delay to obtain appropriation of additional sums from the client, the State and USEPA.

USEPA advised it was not in a position to make an instant evaluation of the design work, and although in general agreement, final comment would be reserved until the VE Report and engineer's responses were received and reviewed by USEPA.

10/24/77 Progress Report and informal summary of the initial VE review forwarded to the client, the State and USEPA. Restoration of the 5% contingency on the cost of engineering services (deleted from original grant application) was requested to cover possible future costs of VE generated re-design).

12/27/77 The engineer received formal report of the initial Value Engineering Review session.

1/27/78 Formal Value Engineering Report and engineer's response submitted to the client, the State and USEPA for review.

3/8/78 Meeting with State and USEPA. At this time USEPA had not fully reviewed the VE Report and the engineer's response to it (five months after the VE session). Since it was too time consuming to wait for approval, engineer had not requested an increase in Step II Grant funds to cover the cost of design modifications due to the initial VE Review session. The engineer prepared a Grant modification for the purpose of obtaining approval by the client for additional funds to meet the cost for design changes due to subsequent VE Review sessions (obtaining approval requires 3 months lead time).

4/13/78 Preparation for second Value Engineering Review session by the engineer and its subcontractors begins.

4/25/78 The engineer receives approval from USEPA to go ahead with the design changes resulting from the initial Value Engineering Review session.

5/8-
5/11/78 Second Value Engineering Review session held at the 65% completion point.

5/18/78 The engineer requests by letter a grant amendment restoring the 5% contingency deleted from original grant for the cost of engineering services to USEPA "as soon as possible to avoid delay."

6/2/78 Transcript of Value Engineering session held May 11, 1978 sent to the client.

7/13/78 Project meeting between the engineer and its subcontractors for coordination of design revisions due to second Value Engineering Review session and the engineer's response submitted to the client, the State and USEPA for review.

8/23/78 Meeting with USEPA on Quarterly Project Review. USEPA had not reviewed second Value Engineering Report yet, but agreed that the engineer should proceed with re-design work (although no committment for compensation or agreement on the VE changes was forthcoming). Agreed the engineer would complete project by October 1978.

9/21/78 The engineer, awaiting approval by the client and USEPA of the recommended changes due to the second Value Engineering Review session. The engineer waiting approval of grant amendment.

INCONSISTENT INTERPRETATIONS (23C)

A reversal of prior approvals, based on individual judgement, may seriously disrupt progress of a program and result in substantial extra costs. For example, a major CBA project in Trenton included a treatment facility, pump stations and interceptors. It was environmentally assessed and USEPA wrote an Impact Statement (1974) accepting the project with some conditions.

All interceptor routes were found to be "acceptable" to USEPA.

After completion of Step II design, and upon application for Step III, the USEPA Environmental Branch sent out a new inexperienced employee to review the routing. He rejected the routing for one interceptor. This interceptor was segmented out of the Step III grant along with some other controversial routings so that some progress could be achieved. As of June 1978, new route alternatives have not been acceptable to USEPA, and portions of the collection system cannot be connected to the plant which will be operational this year (1978).

Formal approvals, as stated in an Impact Statement, should not be upset by new individual judgements without a formal hearing.

## CHANGING REQUIREMENTS (21B)

Boswell Engineering designed a trunk line to serve various sections of the Northwest Bergen Sewer Authority's district. After design began USEPA revised its rules regarding the method of billing customers. The Authority has contracts with municipalities which call for payments to the Authority based on general taxation. USEPA wants these agreements changed to a method of user charges. Naturally, the Authority is receiving negative responses from the affected municipalities and delays are being encountered.

CHANGING REQUIREMENTS (21T)

Elson T. Killam Associates related the following:

The Green Brook - Stony Brook interceptor project was conceived in 1968 when the Boroughs of North Plainfield and Green Brook cooperated in jointing constructing the Green Brook interceptor. This 1968 project was approved by the New Jersey Department of Health and received federal funding for 30% of the construction costs.

The Green Brook - Stony Brook interceptor is a planned extension of the Green Brook interceptor which will permit the Borough of North Plainfield to make use of its alloted capacity in this existing interceptor while serving the following useful functions:

- eliminate periodic raw sewage overflows which discharge onto public streets and school grounds;

- phasing out of three (3) pumping stations which have been in continuous service for over 50 years; and

- provide a cost-effective means of gravity sanitary sewage conveyance for developed areas of neighboring Watchung Borough which has been awarded an EPA grant to construct an extension of its sanitary sewer collection system.

Since 1973 the Borough has been actively pursuing and complying with the requirements which are prerequisite to becoming eligible for federal construction grant funding of the project. For these past six years construction of this severely needed water pollution control project has been delayed in order to meet the constantly changing eligibility requirements of USEPA. To date facilities planning,

environmental assessment, and archaeological studies have been completed to document the needs and impacts of the project.

However it should be noted that, while the USEPA rules and regulations do require comprehensive study of a project prior to its approval, the extended project delays have been the primary result of the uncoordinated administration of the federal construction grants process by the NJDEP. USEPA Region II personnel have been cooperative and efficient in administering the Federal responsibilities of project review.

The deficiencies in project coordination are illustrated by the fact that the Borough of Watchung has received a Step III construction grant for a sorely needed collection system expansion. During the initial years of project planning it was recognized by both NJDEP and USEPA that this Watchung project would have to be coordinated with the North Plainfield interceptor extension project to avoid increasing North Plainfield's already severe raw sewage overflow problem. Therefore, even though Watchung is proceeding with construction of their project, it will not be possible for them to place their new collection system into service until the regulatory agencies approve the Green Brook - Stony Brook project and construction of this downstream interceptor is completed.

Attached is a chronology of the project since December, 1975 when the Borough began initiating additional studies for certification by NJDEP and USEPA.

**BOROUGH OF NORTH PLAINFIELD**
**FACILITIES PLANNING**
**CHRONOLOGY**

| DATE | EVENT |
|---|---|
| December, 1975 | Borough advised by NJDEP that only environmental Assessment and Archaeological Survey studies and a Public Hearing would have to be completed for Step III project approval. |
| April, 1976 | Environmental/Archaeological consultant retained by Borough. |
| September, 1976 | Environmental Assessment and Archaeological Survey reports sent to NJDEP. |
| March, 1977 | Public Hearing on project held. |
| April, 1977 | All required documentation and studies as per 12/75 NJDEP directives sent to NJDEP. |
| October, 1977 | EAS and Archaeological Survey studies reviewed NJDEP. |
| October, 1977 | Borough advised by NJDEP that a complete Facility Plan must be prepared for project approval.* |

*Note that no mention of additional Facilities Planning studies was made by NJDEP during the 22 months between 12/75 and 11/77.

| DATE | EVENT |
|---|---|
| December, 1977 | Meeting held with NJDEP to discuss status of Step III project. |
| April, 1978 | Borough authorizes engineering consultant to prepare Facilities Planning study. |
| May, 1978 | Meeting with NJDEP to establish Facilities Planning requirements. |
| June, 1978 | Facilities Plan outline submitted to NJDEP for review. |
| June, 1978 | Comments on Facilities Plan outline received from NJDEP. |
| September, 1978 | Completed Facilities Plan submitted to NJDEP for approval. |
| December, 1978 | Project schedule meeting held with NJDEP/USEPA. |
| December, 1978 | Comments on Facility Plan received from NJDEP. |
| January, 1979 | Addendum No. 1 re: December 28, 1978 comments. |
| January, 1979 | Plans and specifications sent to NJDEP for review. |
| January, 1979 | Discussion of Facilities Plan at USEPA. |

63-935 O—80——90

| DATE | EVENT |
| --- | --- |
| January, 1979 | Written reply to comments of 1/16/79 meeting sent to USEPA. |
| January, 1979 | Project approval of alignment from Corps of Engineers obtained. |
| February, 1979 | 404 Permit approval of project obtained from Corps of Engineers obtained. |
| February, 1979 | Facilities Plan comments re: environmental plan and specification review obtained from NJDEP. |
| February, 1979 | Facilities Plan certified to USEPA by NJDEP. |
| February, 1979 | Plans sent to Union County Dept.-of Parks for final review and approval. |
| February, 1979 | Reply to 2/7/79 environmental plan review sent to NJDEP. |
| February, 1979 | Meeting held at NJDEP to discuss project. |
| March, 1979 | Field meeting held at North Plainfield to resolve final alignment issues. |

| DATE | EVENT |
|---|---|
| March, 1979 | Letter summarizing 3/5/79 meeting sent by NJDEP directing Borough to revise design of interceptor sewer in accordance with agreements reached at 3/5/79 meeting. |
| March, 1979 | Comments from USEPA received on its review of Watchung/North Plainfield service agreement. |
| March, 1979 | Response to 3/9/79 letter submitted to NJDEP. |
| April, 1979 | Revised specifications for lateral stream encroachment sent to NJDEP. |
| Aptil, 1979 | Revised construction plans resubmitted to NJDEP. |
| April, 1979 | Written response to USEPA/Corps of Engineers plan and specification review submitted to USEPA. |
| April, 1979 | Meeting w/NJDEP to discuss revised plans and specification of lateral stream encroachment. |
| May, 1979 | Letter from NJDEP directing Borough to analyze alternative interceptor alignment. |

CHANGING REQUIREMENTS (21A)

The Chairman of the Linden Roselle Sewerage Authority wrote the following letter to the USEPA:

December 12, 1978

Mr. E.C. Beck
Region II Administrator
United States Environmental Protection Agency
26 Federal Plaza
New York, N.Y. 10007

Subject: Ocean Dumping Permits
Public Hearing October 16, 1978

Dear Mr. Beck:

We have recently received a copy of Mr. Bermingham's memorandum dated November 22, 1978, regarding the subject. We have also received a copy of Mr. Hoffman's memorandum dated November 13, 1978 which is referenced in Mr. Bermingham's memorandum in Tab 6 relating to Linden Roselle Sewerage Authority and Rahway Valley Sewerage Authority.

The latter memorandum states on page three that LRSA is to submit an approvable Step 3 grant application to EPA and NJDEP or "independently fund the construction of sludge dewatering facilities: August 20, 1979".

On page 4 there are statements "submit approval (sic) Step 2 grant application to EPA and NJDEP or independently fund the preparation of

design and specifications and submit to EPA and NJDEP for approval: April 5, 1980, "and" submit approvable Step 3 grant application to EPA and NJDEP on (sic) independently fund the construction of the facilities for the sludge disposal alternative selected: April 21, 1980".

We strongly object to any requirement or even implication that LRSA will fund pollution control equipment without EPA grants in order to meet a scheduled date. Is it not true that the original date of the requirement under PL 92-500 for secondary treatment of July 1, 1977 was waived in instances because grant funds were not made available?

It is entirely unreasonable to expect the LRSA to finance the high total cost of this phase of the pollution control program, particularly since the basic act (PL 92-500) under which the program was undertaken was based on the assumption of Federal cost participation. This is also indicated in the fact that the existing LRSA ocean dumping permit No. II - NJ-21-Interim in Special Condition 7 states that the waste generator is obligated to comply with a schedule whether it chooses or has to spend its own money, whereas the proposed permit II-NJ-021-A-Interim in Special Condition 7 does not include this provision. We appeal to you very strongly to not impose this entire tremendous financial burden upon the citizens of the City of Linden and the Borough of Roselle.

We realize that the Enforcements Branch is required to insure compliance with the permit as issued. The way to resolve the present violation and possible future violations, consent decrees, etc., is to include only the all-important December 31, 1981 date in the sludge dumping permit. This is the only date mandated by PL 92-153.

It is impossible to meet any other dates because of the lack of control by LRSA over time taken by NJDEP and EPA to approve the various documents required in the administration of projects. An inspection

of the schedules contained in Mr. Hoffman's memorandum of November 13, 1978 shows four approval steps by EPA and NJDEP. Thus EPA and NJDEP are heavily involved in the length of time required to complete the project. Where these approvals take an inordinate amount of time as they have in the past, the result of not meeting the schedule would then be loss of grants and multimillion dollars of additional costs to Linden Roselle Sewerage Authority (LRSA) which costs would then be passed on to the citizens of the City of Linden and Borough of Roselle and there is also a strong possibility of not meeting the December 31, 1981 date.

Another reason for not including interim dates is that each time a date is not met a violation notice is issued which then sets up a tremendously time consumming and costly chain of events for responses, etc just as the current violation notice is doing. The time and costs could be better spent in working on the main objective which is to cease ocean dumping by December 31, 1981.

Also, by including interim dates in sludge dumping permits and in an effort to met the interim dates it is very possible that LRSA will be forced to adopt a sludge management plan that is more costly than it would be otherwise. However, if you absolutely refuse to eliminate the interim dates, then it is imperative that the schedule should include the EPA and NJDEP actions because NJDEP and EPA approvals are required for all pollution control facilities. Since NJDEP and EPA are involved, they must be held accountable for for their contribution to the delays resulting from their actions.

LRSA is presently pursuing a two pronged approach. One is a contingency plan and the other is the final plan.

The contingency plan includes dewatering and disposal in a landfill. There are sixteen landfills in New Jersey which are registered to accept dewatered sludge. This was stated in a letter to us by the

Director of the NJ Solid Waste Administration. Also stated were means of providing additional landfills. Barring unusual delays by NJDEP and USEPA for whatever reason such as grants, permits etc, LRSA will cease ocean dumping by December 31, 1981. The final plan will include a thermal reduction system or composting, whichever is most cost-effective.

In a few weeks we expect to have data which will assist us in determining which of these two systems this will be. However, the selection of the final process should not be made until the forthcoming EPA sludge management and pretreatment regulations are issued in their final form. This is because if a final process is selected primarily to meet interim dates, it may not be the most cost-effective procedure. For instance, some pretreatment of industrial wastes may not be in effect until July 1, 1983. If thermal reduction is selected for the final process, and since LRSA is in a relatively highly industrialized area, the thermal reduction system would require extensive and expensive air pollution control devices. After the pretreatment regulations are implemented these devices may not be needed. Therefore this would be a waste of taxpayer's financial resources. If composting would be selected, the disposal of the compost would require expensive liners and other items until the pretreatment regulations result in a sludge that is safe to use. There are other more cost-effective solutions which may develop by the time the sludge quality is improved after compliance with EPA pretreatment regulations. Thus it can be seen that is not reasonable for LRSA to be forced to implement a final sludge management plan merely to meet interim dates in a sludge disposal permit. Therefore, at the present time, we request that LRSA should be required to proceed with only the contingency plan of dewatering and disposal in a sanitary landfill.

Because the remaining time is now extremely limited we need to commence with the design of the contingency plan and continue with only

short interruptions for grant applications, contracts, approvals etc. LRSA should be given a letter of intent by EPA to the effect that EPA will fund the project where it is apparant that waiting for EPA and NJDEP approvals could result in delays. Final approval of the costs would be determined by negotiation while the work is in progress.

We however, intend to pursue the investigation of a final plan but would not wish to implement it until we have a reasonable assurance that it will be cost-effective and will not require substantial revisions after final EPA sludge management and pretreatment regulations are issued and enforced.

We feel that we have been very diligent in our efforts to meet the ocean dumping ban deadline. We also feel that we have been and will continue to be delayed by procedures which we cannot control. This had previously been brought to your attention at a meeting held with you in Washington, D.C. on April 5, 1978, which meeting was attended and addressed by our elected government officials. We fully intend to continue our diligent efforts to eliminate ocean dumping by December 31, 1981. However, we do not wish to be forced to adopt uneconomical procedures and we strenously object to doing so without EPA funding as recommended by Mr. Bermingham's memorandum to you dated November 22, 1978. We earnestly request that you give strong consideration to this matter which is of vital concern to LRSA, the City of Linden and Borough of Roselle. We suggest that we meet with you and your staff at the very earliest time in order that we can resolve the above vital issues to the satisfaction of all involved. We would be pleased to hear from you at your earliest convenience.

Very truly yours,

LINDEN ROSELLE SEWERAGE AUTHORITY

George Gordon, Chairman

ADDENDUM

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS/MSR ENGINEERS
136 SUMMIT AVE.
MONTVALE, NEW JERSEY 07645
TEL: (201) 573-1180

NEW YORK
MONTVALE, N. J.
BUFFALO
SAN FRANCISCO
WASHINGTON, D.C.
DALLAS
SEATTLE
DENVER
KANSAS CITY
HONOLULU
NEW ORLEANS
SAN MATEO
HONG KONG
BOLIVIA

July 10, 1979

Mr. Peter Allen
CEC
66 Morris Avenue
Springfield, N. J. 07081

Re: March on Washington, July 19, 1979

Dear Peter:

You asked for reports on projects that have been stymied by EPA red tape to an unconscionable degree. We are associated consultants on an application for a 201 Study for the North Arlington-Lyndhurst Joint Meeting.

The project began in 1974 with a Facility Report and I/I study under the regulations in force at that time. Regulations were changed in 1976 after the I/I was substantially complete. EPA and DEP discussed allowing work in the SSES that was not required in an I/I at that time. The project lay dormant from 10/76 to 8/77 while EPA was supposed to be preparing comments.

Finally in July and August of 1977, EPA requested further work on the I/I study which exceeded the work outlined in the original contract and which seemed not to be in accordance with EPA's rules at that time. This was protested.

From August 1977 to December 1978, there were numerous meetings, discussions, correspondence, etc., mostly because EPA seems to have mislaid information submitted. More detailed data was submitted in October 1978. To date the project has not moved off dead center.

Contracts were submitted for a 201 Study based on contracts that had been approved for other projects. These were not approved by EPA, a different format was requested.

URS

Mr. Peter Allen
CEC

July 10, 1979
Page 2

All in all, nothing significant has happened on this project in the last three years except a great loss of time and money by Town officials and by the engineering firms involved.

I trust this is of some help.

Sincerely,

URS/ASR ENGINEERS

Arnold R. Smith

ARS/cc

INTER-OFFICE CORRESPONDENCE
PANDULLO QUIRK ASSOCIATES

Date: July 11, 1979

To: Consulting Engineers Council of New Jersey

From: Pandullo Quirk Associates

C.P. Number:

Re: Ringwood Borough
Sewerage Authority
Sewer System Delays

The Borough of Ringwood began planning a sewer system in 1967 because the officials then in office were aware of a need to provide sewers to abate pollution and Public Health nuisances. As a result, a feasibility study and preliminary engineering was undertaken with the assistance of a HUD advanced planning loan.

The plans and feasibility were acceptable to HUD, who in 1969 offered a grant for a collection system around the densely populated lake communities in the Borough. Those lake communities are respectively: Cupsaw Lake, Erskine Lakes and Skyline Lakes.

In 1970, the planning of sewers was further enhanced by planning loans from the State of New Jersey permitting final design of a sewer collection system. In 1973, in the month of October, the NJDEP issued a permit to construct, maintain and operate a collection system with the provision that the system remain dry until a regional system that was concurrently being planned was on stream. In the same year HUD advised the Borough that unless it began the construction of sewers, it would withdraw its grant offer of 1969. In the meantime, the Borough created a Sewerage Authority to manage its pollution abatement problems and construction of its sewer collection system.

The order of HUD in 1973 placed the Sewerage Authority in a dilemma - to sewer and save the grant or not to sewer and lose the grant. Collection systems at the time were on the tail end of the Priority List for the Construction Program of Sewers in the State of New Jersey. Ringwood's priority number placed it outside of the fundable range for Grants-in-Aid under PL-92-500. The Authority, as a result of this dilemma, decided to proceed with the construction of sewers and chose the Cupsaw Lake area of the Borough to award a Contract in 1974 that provided for construction. That portion of the Borough has existing a collection system constructed (dry).

During the period of construction of the Cupsaw Lake System, the State of

New Jersey rearranged collection system priorities to mesh with "Mother" regional systems, therefore, the Ringwood priority changed from outside the fundable range to within the fundable range. As a result, the Authority again had a judgment decision placed before it. It determined, with all of the facts present at that time, to reduce the scope of the HUD offer and to submit an application for the incomplete portion of the sewer system for EPA funding.

In 1974, the Authority closed on a bond issue for 7.4 million dollars, anticipating a completed sewer system by late 1977 or 1978 and a regional system into which it might discharge wastewater. The events anticipated did not occur precisely as programmed. The plans, specifications and project reports submitted with the Step III Grant Application in 1975 went unresponded to by NJDEP for some period of time, since the Application was tied to the completion of the regional facilities. In 1978 the NJDEP, recognizing the financial plight of the Ringwood Authority, offered assistance by suggesting that a Step I/Step II Grant Application be prepared and executed with the promise that action would be taken to eliminate a possible default problem, by an infusion of grant monies, before January 1, 1979.

When NJDEP reviewed all of the material previously presented new regulations were applied to old material. As a result, in 1977 a request was made to provide an additional report known as PRM 77-8. This report was prepared and a Public Hearing held in February of 1978. After approximately 7 months of review of the PRM 77-8, NJDEP determined that the need for sewers, as well as other unresolved environmental problems, required a supplementation of the PRM 77-8 that was prepared. In the meantime, PRM 78-9 was promulgated and it was by direction of NJDEP that the Ringwood Authority employ an "impartial engineer" to reexamine and document need, as well as investigate the unresolved environmental problems. That report is now complete. Public Hearings have been held and recommendations within the near future will be forwarded to NJDEP by the Authority. The ever changing regulations applied to a report whose criteria were promulgated at an earlier time that would meet the criteria of that time are reviewed in the light of current regulations which produce normally negative responses from the Agencies and require clarification and constant updating.

As a result, the Borough of Ringwood Sewerage Authority, who has eked through its financial existence over the last several years, is now faced with the problem of refinancing its project or facing financial default on January 1, 1980.

# MEMORANDUM

TO: Consulting Engineers Council of New Jersey DATE: July 3, 1979

FROM: Pandullo Quirk Associates

SUBJECT: Cape May Region
Cape May County Municipal Utilities Authority

An excellent example of the delays caused by the rules and regulations promulgated to implement the Federal Water Pollution Control Act Amendments of 1972 and the more recently passed legislation, the Clean Water Act of 1977 is the chronology of events regarding the transition from the Step I Planning Phase to the Step II Design Phase for the Cape May Region of the Cape May County Regional Sewerage Project.

In March of 1977, the Step I Facilities Planning Report for the Cape May Region had been completed and submitted to the regulatory agencies for review. Surface waters in and about the Cape May Region had been undergoing serious water pollution problems in recent years to the extent that shellfish harvesting areas had been condemned and beach closings had been occurring. In conjunction with the water quality degradation, the State of New Jersey had invoked a building ban to avoid further overloading of the existing sewerage facilities.

Presently, there are four pumping stations, a network of force mains, a primary treatment plant, and an outfall that discharges into Delaware Bay a short distance from shore. The limited capability of the system to adequately handle and treat the raw wastewater which is generated was further impaired by the excessive infiltration and inflow that was entering the system. It was evident that a concerted effort to clean up the waterways in this regional area was of the highest priority due to the existing conditions. Accordingly, the regional Authority and the local municipalities accelerated their efforts to provide the necessary facilities to meet water quality objectives.

As the regional Authority advanced the Facilities Planning in this regional area, the City of Cape May, which contributes the major portion of the flow to the existing treatment facilities, undertook a program to reduce cross-connections in the system and to eliminate sources of inflow. The City of Cape May's effort through a HUD Grant has essentially been completed, and the results indicate that a lesser amount of bypassing of raw waste into Delaware Bay has been occurring.

The Authority, in March of 1977, had completed its Facilities Planning activities and was poised to enter the Step II Design Phase for the region. The facilities that were proposed essentially involved an upgrading of existing facilities in that the wastewater treatment plant would be located at the same location as the existing plant, except that secondary treatment would now be provided; the regional force main system would be located within the same roadway right-of-ways that presently housed the existing pipelines for the system; and the regional pumping stations would be located adjacent to the existing stations. The Facilities Plan called for an actual reduction in the number of pumping stations from four to three; also, the main pipeline that would lead to the treatment plant would be reduced from a 24" diameter line to a 20" diameter line. Additionally, the discharge to the Delaware Bay waters, which are of high quality, would be eventually terminated by virtue of ultimately diverting the flow to a common ocean outfall with the regional area to the north. All indications were that, if there were any regional system that was readily approvable, the Cape May Region would be the one since its configuration and size are comparable to the existing facilities, and it provides basic improvements necessary to meet water quality goals.

Since the Facilities Plan had been submitted to the regulatory agencies in 1977, there has been a chain of events which has prevented this regional area from advancing from Step I Facilities Planning to Step II Design. Nearly 2½ years have passed while issues peripheral to the size and location of the regional facilities are being considered.

Initially, there was great concern regarding the modest increase in design flow between the existing facilities and the ultimate facilities that would service the region for the next 40 years. The actual design flow for the first phase of the project was projected at 3.2 MGD, while the design flow capacity of the existing treatment facilities is 3.0 MGD. As time went on, there were major discussions regarding the environmentally sensitive areas and the amount of growth that had been allocated for those areas. The facilities plan did not include any growth potential for environmentally sensitive areas; however, there was provision for growth to occur as fill-in in the already developed areas.

USEPA was concerned that it would be encouraging growth in flood prone areas. Following Executive Order #11988, USEPA took the most extreme interpretation of that order by indicating that they would not support any growth that would occur in the flood hazard zone, nothwithstanding the fact that most of the area was in the defined flood hazard zone and was sewered. The Cape May Region is essentially a low lying area along the coast of New Jersey and is almost, in its entirety, below the 100 year flood of elevation 10 above sea level. However, local zoning ordinances require new housing to be at or above elevation 10, and existing housing, which is eligible for flood insurance under the Federal Insurance Agency, is presently sewered. USEPA was demanding that some provision be made to avoid hook-ups to potential buildings that might be constructed adjacent to existing structures within an already developed area.

Nearly a year went by while USEPA was making determination that the actual flow for the treatment plant should be designed at 3.0 MGD as opposed to 3.2 MGD. This increment of flow is so small as to be indiscernable in actual facilities design. Nevertheless, USEPA wanted the documentation for this design capacity while the project was on hold awaiting a Step II Grant. After nearly two years had gone by, USEPA finally circulated a Negative Declaration signifying the acceptance of the project by that agency. Certification from the State agency had been received nearly a year prior to that. As a result of the circulation of the Negative Declaration, approximately eight organizations, most of which were not from the immediate area, provided comments to USEPA to the extent that grant conditions should be imposed for the Step II Design work to establish the specific areas where growth could not occur. These environmental groups were threatening litigation to have USEPA establish grant conditions that would force the County Authority as well as a local municipality to restrict sewer hook-ups for specific vacant lots falling in environmentally sensitive or flood hazard areas. There appeared to be no legal means to enforce such a grant condition per USEPA's initial review of the request. However, based upon the threat of litigation, USEPA has acquiesed to pressure from the special interest groups by forcing local entities to find ways to implement the conditions.

Apart from the delays to finally establish the facilities sizing for the design, the project has now incurred administrative delays due to peripheral issues that may not be feasible to implement. At this time, the administrative delays are holding up the Step II Design Grant. The special interest groups do not appear to have comments that would alter the facilities sizing and location as proposed; however, the Step II Grant offer, although not influenced by the issues presently before USEPA, is being delayed until these other matters are resolved.

The delays in this regional area have been nearly 2½ years to date without any positive sign as to when the project will advance into the design phase. The attack on pollution, which is the primary goal of the Federal Legislation, has been greatly retarded by virtue of the events that have taken place. The rules and regulations governing implementation of projects under the Federal Funding Program seem to provide every opportunity for delaying projects rather than moving projects. Public hearings have been held on this project and inputs received from local planning agencies and municipalities which poised the project to advance to the Step II Design phase, only to have a number of outside agencies with less than a familiarity with the project alter the reviewing process at the eleventh hour and almost completely upset the program being undertaken. The need for public hearings and local and state acceptance for projects seems substantially diluted when agencies outside the State can invoke their power at a time when the planning is essentially complete. The economic impact that delays can cause seems to have little or no consideration in the overall development of a USEPA project. For this regional area alone, the escalation in cost would be measured in the millions of dollars; and at the same time, the essential facilities that are being provided have not been effectively changed during the nearly three year intervening period.

# APPENDIX

JAMES ABDNOR
1st District, South Dakota
1524 Longworth House Office Building
(202) 225-2801
VERNON C. LEIR
Administrative Assistant

COMMITTEES
PUBLIC WORKS AND TRANSPORTATION
VETERANS' AFFAIRS
AGING

**Congress of the United States**
**House of Representatives**
**Washington, D.C. 20515**

January 11, 1980

Chairman Norman Y. Mineta
Subcommittee on Oversight and Review
Committee on Public Works and Transportation
2165 Rayburn Building
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed is the December 31, 1979, letter I have received from South Dakota's Secretary of Water and Natural Resources, Warren Neufeld, with respect to EPA's 201 Construction Grants Program.

It is my understanding it may still be possible to have this letter included in the Subcommittee's hearing record. If so, I respectfully request that it be included.

With best wishes,

Sincerely,

JAMES ABDNOR
Member of Congress

JA/alw
Enclosure

South Dakota Department of
Water & Natural Resources
Joe Foss Building
Pierre, South Dakota 57501

December 31, 1979

The Honorable James Abdnor
House of Representatives
1224 Longworth House Office Building
Washington, D.C. 20515

Dear Jim:

In reply to a request by a member of your staff for this Department to provide comments and recommendations regarding the House Public Works and Transportation Committee's Subcommittee on Oversight and Review on the Status of the 201 Construction Grants Program, the South Dakota Department of Water and Natural Resources offers the following.

The EPA Construction Grants Program has provided the State of South Dakota with a total allocation of $62,953,675 during the fiscal years 1972 to 1980. These funds provide grants to communities on a 75 percent federal, 25 percent local cost share basis for the planning, design and construction of wastewater collection and treatment facilities. In effect, the federal grants of $62,953,675 along with the local cost share have provided a total monetary benefit to the State of at least $83,938,233. As you can see from these figures, the EPA Construction Grants Program has provided a very important monetary contribution to the State's economy and has also improved water quality and prevented public health hazards due to inadequately treated wastewater.

*Equal Opportunity Employer*

63-935 O—80——91

The following South Dakota Communities have constructed wastewater treatment and collection facilities with the aid of grants from the EPA Construction Grants Program:

| | | |
|---|---|---|
| Cary | Mitchell | Vivian |
| Dell Rapids | *Scotland | Flandreau |
| *Elk Point | *Vermillion | Camp Crook |
| DeSmet | Gregory | Wasta |
| *Lead-Deadwood | Rapid Valley | *Iroquois |
| *Sioux Falls | *Marion | Goodwin |
| *Rapid City | Prairie Meadows | Kranzburg |
| *Yankton | *Watertown | Box Elder |
| *Huron | *Belle Fourche | Turton |
| *Pierre | Sinai | Astoria |
| *Madison | Carthage | Henry |
| *Brookings | *Freeman | Stockholm |
| Mobridge | Blunt | Irene |
| Chamberlain | Oahe | Dupree |
| Hudson | Ramona | |

*Projects are currently under construction

It is clear from this list that the EPA Construction Grant Program has been an integral part of the effort to provide safe, sanitary wastewater collection and treatment in South Dakota. It is expected that within the continued funding of this program, the EPA Construction Grants activity will remain the dominant federal agency for funding wastewater collection and treatment facilities in South Dakota.

I would, however, like to provide you with some comments and suggestions that this Department has concerning this program.

The general lack of manpower within EPA has prevented the orderly and timely completion of numerous projects. The manpower shortage has contributed to many delays in the three step construction grants process. Contributing to the manpower shortage and resultant delays are the complex EPA procedures, rules, regulations, and policies that abound within a system that perpetuates an untold amount of bureaucratic red tape. This has resulted in many of our small town administrators, consulting engineers, and state officials becoming increasingly disillusioned with EPA officials and the programs and policies issued by this agency.

The delays have also been caused by the disagreements and lack of coordination between various Branches and Divisions within EPA. For example, the Water Quality Division will make a technical evaluation of a particular project with which the Enforcement Division will disagree at some point in the future. This has caused a great deal of frustration, and a great deal of confusion at the State and local level as to where the final authority on these water quality issues really lies. When these re-evaluations by a different faction of EPA result in a change to a project that is already underway, or even nearing a step completion, very significant delays are caused.

This manpower shortage will hopefully be alleviated by the State Management Assistance Grant (SMAG) from EPA to the state. This grant provides the State of South Dakota with at least $400,000 per year from fiscal years 1978, 1979, 1980 and 1981, to take over the management of the Construction Grants Program from EPA. DWNR signed a delegation agreement with EPA on April 6, 1979, which outlines a phased approach to the takeover of this program which the State will implement over the next three years. This agreement will allow the State to manage the direction and day to day administration of this program and is intended to alleviate many of the delays that are inherent to the existing EPA management structure. DWNR started the phased take over of management duties on July 1, 1979. Since that take over, this Department has been able to prevent several delays and has greatly reduced the administrative turnaround time for the construction grants activities.

However, there are still several items to be addressed that are the source of either controversy or significant delays in the program. One such item is the lack of decisiveness and reluctance shown to date by EPA to approve innovative and/or alternative (I/A) wastewater systems. These systems have been the recipients of special monetary set asides in order to fulfill the Congressional mandate to provide an initiative for funding new more cost effective wastewater treatment systems, and to fund the reuse of water for industrial, municipal or agricultural purposes. The delays incurred in obtaining EPA approval of such systems has led to a reluctance by many city officials and consulting engineers to put forth the effort to plan and design such systems. Because of the inability to obtain the approvals for I/A systems, many states are expected to lose their respective monetary set asides which were intended by Congress (P.L. 95-217 Section 205 H & I). It would be extremely regretful to lose these funds since the need for improved wastewater treatment facilities is so great.

Another item of concern is the inability of many contractors to comply with Minority Business Enterprise (MBE) guidelines. To date, the MBE percentages for hiring minority sub-contractors or employees in South Dakota have been goals rather than requirements. These goals have proven to be troublesome to contractors since under the present "goal" system, the contractors are required to document that serious attempts have been made to hire minority businesses and employees. This problem will be much worse if the "goals" ever become "requirements." The bids for one project in South Dakota have already been lost due to delays caused by MBE requirements. This Department has also recently been informed that the Department of Labor will soon initiate a minority employee hiring goal of 1 percent for women in South Dakota. This could increase the delays already inherent to this situation.

Further delays in the EPA Construction Grant Program have been caused by a long turnaround time by EPA officials needed to determine the eligibility of projects that receive advanced secondary treatment (AST) or advanced wastewater treatment (AWT). As required by Congressional mandate, the EPA Administrator or his regional administrators must approve all projects that receive EPA funding for AST/AWT. This review process has further compounded the lack of coordination between the various Divisions within EPA and has created a major conflict between the need for advanced secondary treatment of water quality standards as specified by the states. For example, the AST/AWT review process has delayed the Sioux Falls and Milbank wastewater construction projects and has amounted to a financial loss due to inflation of thousands of dollars. The review process for approval of AST projects must be streamlined in order to prevent delays and further financial losses. We strongly support the comments made by EPA Administrator Costle on November 1, 1979, to the House Public Works Subcommittee on Oversight and Review. He recommended that Congress give consideration to eliminating the requirement that EPA headquarters sign off on AWT Projects exceeding $1 million. He said it has been demonstrated that this function can be properly handled at the state and regional level thereby rducing program delays and costs.

The last item to be discussed is the inordinate amount of red tape in the form of ever increasing and ever changing federal regulations and policies. Most small town officials and consulting engineers have an extremely difficult time keeping abreast of these new and revised regulations and policies. Any efforts that could be extended to reduce the number and impact of these regulations and policies for small communities involved in the EPA Construction Grants program will help alleviate the continued general feeling of over regulation by many small communities and consulting engineers.

I would like to also bring you up to date on the current financial status of the Construction Grants Program in South Dakota. As stated earlier, the State has received $62.9 million for this program since fiscal year 1972. To date, all of these funds have been awarded to communities for the planning, design, and construction of wastewater pollution control facilities with the exception of $2.1 million, which is maintained in a special reserve for cost overruns. As you can ascertain from these figures, South Dakota is one of the states that has shown a clear ability to effectively utilize and distribute the allocations received for this program. I am sure that you are aware that several states have retained large cash balances. This Department feels that the present allocation formula requires analysis and reconsideration in order to prevent the large monetary surplus in some states and to allow the increased allotment of funds to such states as South Dakota which have a need and ability to obligate additional funds. I might call your attention to the 1978 Needs Survey, which projected a total need of $182 million for South Dakota.

In conclusion, I would like to offer the following suggestions concerning the EPA Construction Grants Program for your consideration:

1. Revise the present allocation formula to prevent the large unobligated cash balances in some states and provide additional funds to states such as South Dakota that have shown an ability and need for additional allocations.

2. Provide maximum practicable delegation of the EPA Construction Grants Program to the States.

3. EPA and the states should make a conscientious effort to fulfill their respective responsibilities under the delegation agreement.

4. Provide the states a full partnership with EPA in the management and direction of the national program.

5. EPA should make a conscious effort to reduce red tape, regulations, and policies and should assess the monetary and manpower requirements needed for any additional rules and regulations.

I would also like to request your support of providing the full authorized level of $5 billion for this program for fiscal years 1981 and 1982. A revision of the allocation formula will hopefully allow South Dakota and other states to proceed with critically needed and often basic wastewater treatment and collection needs. I might point out that the 1978 Needs Survey indicated a national need of $106 billion. Even with a modest increase in inflation, one can easily see that an annual authorization of $5 billion is needed to simply start the huge task of providing wastewater facilities that protect basic public health and environmental needs.

In summary, I would like to state that the EPA Construction Grants Program is vitally needed in South Dakota to provide basic wastewater collection and treatment needs for our citizens, and that the State is working diligently to provide its citizens with the maximum possible benefit to be obtained from this program. I urge your consideration of the above recommendations and I look forward to working with you on this program which is of vital concern and need to South Dakota.

Sincerely,

Warren R. Neufeld, Secretary
Department of Water & Natural Resources
Phone: (605) 773-3151

OFFICE OF THE CITY MANAGER
(715) 839-4902

CITY OF EAU CLAIRE — P.O. BOX 148 EAU CLAIRE, WISCONSIN 54701

3

November 28, 1979

The Honorable Norman Mineta, Chairman
Subcommittee on Oversight and Review
Committee on Public Works and Transportation
U.S. House of Representatives
8376 Rayburn House Office Building
Washington, D.C. 20515

Attention: Mr. Robert Prolman

Gentlemen: Re: EPA Construction Grants Program

Please include this letter in the Record of the Recent Hearings on the EPA Construction Grants Program.

Eau Claire, like many communities, was caught in the ramifications of P.L. 92-500. In 1972, final construction plans were underway for a secondary wastewater treatment facility to replace the existing primary treatment facility. Operation of the secondary wastewater treatment facility was anticipated for 1975. New rules, changing rules, program guidance, and new policies have frustrated this essential project and we now anticipate operation in 1980. The resultant delay has added an estimated $6 million to the local and national taxpayers' burden.

We presently have three EPA funded projects in the Step III phase. Having made it this far, we feel that our experience may be of benefit to your committee. We would suggest that the following be considered:

A. A time limit be placed upon all EPA reviews consistent with their complexity. For instance - one week for a grant amendment and ninety days for a facility plan review.

B. That new rules not be applied retroactively unless there is a proven substantial cost savings or significant environmental

benefit. Certainly new rules are not adopted unless there is some benefit. The question of relative benefit vs. continued degregation of the environment due to delay must be answered. It is felt that time and cost savings can be realized and the intent of the law met if the applicable rules at the time of Step I application approval are applied for the project duration.

We appreciate the opportunity to present these comments.

Sincerely yours,

CITY OF EAU CLAIRE

Stephen J. Atkins
City Manager

ak

COMMONWEALTH of VIRGINIA
STATE WATER CONTROL BOARD
2111 Hamilton Street

B. V. Dean
Executive Secretary

Post Office Box 11143
Richmond, Virginia 23230
(804) 257-0056

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December 3, 1979

Honorable Norman Mineta
Chairman, Subcommittee on Oversight & Review
Rayburn House Office Building, Room B-375
Washington, D. C. 20515

Attn: Bob Prolman

Dear Congressman Mineta:

We would appreciate your making this letter a part of the record for the Oversight & Review hearings held recently (October 30-November 1) on the municipal wastewater construction grants program.

The following comments are intended to cover the same basic topics which we understand were addressed by the Subcommittee.

A. Essentially, two factors have significantly hindered the rate of progress in the construction grants program.

1. The lack of timely and sufficient funding continues to mire the program in a number of states which have a heavy backlog of projects ready to proceed.

Although $9.0 B was released for FY 76, in true perspective, shipping a year of appropriation plus the erosion of the FY 73-75 carryover funds through inflation represents an estimated loss of $140 M to Virginia.

Funding for FY 77 was at a token level and although the full authorization of $4.5 B was available for FY 78, in each of the two subsequent years there has been a progressive shortfall with considerations of a cut to zero funding for the current year.

In Virginia, this continuing uncertainty is most perplexing as we attempt to adjust to the cutbacks through project splitting in an effort to initiate a balance of new starts only to find we are being overtaken by inflationary increases on the unfunded segments and other deferred projects.

Presently, Virginia has a $770 M backlog need for federal funds and at the FY 80 appropriations level of $3.4 B, we will never catch up.

The lack of orderly integrated financing for local/ineligible costs through other federal grant and loan agencies as the Department of Housing and Urban Development (HUD) and the Farmers Home Administration (FmHA) further hinders the completion of wastewater treatment projects. These agencies have experienced difficulty in scheduling their funds to fit the construction stage of the Environmental Protection Agency (EPA) 3-step process.

2. The plethora of new regulations, guidance, program requirements (PRM), etc., are confusing at all levels and appear to be self-propagating with EPA. Especially the retroactive application of such controls, for example, PRM 78-9 has been most disruptive. In Virginia this has significantly hampered the preparation and approval of facilities plans (Step 1/FP) while the benefit to the completed project remains questionable. Our experience would suggest that the approval of completed FPs may have been inadvertently omitted from the average review times reported in the November 1 hearing.

Under the excess of regulations, the program inordinately draws out the process from planning through construction and with the accompanying inflation, the intended capture of any ill-advised spending is probably nullified.

B. The following construction grants program review and approval functions have previously been delegated to Virginia by EPA under memoranda of understanding (MOU's).

1. Step 3, plans and specifications review.

2. Addenda and Construction Change Order review.

3. Operation and Maintenance Manual review.

4. NPDES Permit Program which, of course, significantly affects the grants program.

C. The attached tabulation and graph (Figures 1 and 1a) set forth the Section 106 funds that have been made to the Virginia State Water Control Board each year since FY 72. As noted, the costs for the Division of Construction Grants (DCG) do not include

the major delegated functions cited under B above. DCG activities are devoted principally to priority ranking, eligibility determinations and administrative processing of applications and supporting documentations.

D. Virginia initiated negotiations for a 205(g) "General Agreement" over a year ago and essentially has developed an acceptable final draft document. Concurrently, we have developed second draft functional agreements which will provide for incremental implementation of the program over a 12-18 month span.

However, in the interim period of this work, our Governor has instituted an all-agencies restraint on state positions which precludes any further delegations at this time. Presently, we are in the midst of a management study to further evaluate the pros and cons of proceeding with delegation. We are hopeful that in the near future this effort will permit us to accept the first phases of the program with restricted positions, tied to the continuance of 100% federal funding.

E. Recommendations for expediting the program:

1. The Clean Water Act (CWA) establishes "secondary" as the minimum treatment level for publicly owned treatment works and further stipulates all public owners be afforded funding for facilities to achieve this level. In many situations, public owners are being required to provide additional treatment at considerable costs (capital + operations & maintenance) just to comply with the minimum level of the CWA; "treatment for treatment sake", when in fact the discharges have no detectable effect on receiving waters. We question if this is an effective use of federal or local funds.

We believe that through redefining minimum treatment and other reasonable change, the monumental funding need can be substantially reduced and yet still maintain the beneficial objectives of the CWA.

2. With a renewed fix on the beneficial objectives, extend the municipal program 10 years beyond FY 82. Provide for multiple year authorizations commensurate with realistic projections and appropriations advanced by at least one year.

3. Prohibit the retroactive application of any regulation beyond the grantees acceptance date for each respective award (Step 1, 2 & 3). Where new regulations are necessary, extend lead time to provide more uniform transition. Finally, the loose interpretation of program policy statements having regulation force should be discontinued.

We hope that the foregoing thoughts will be of some value to the Subcommittee. If further information is needed, please let us know.

Sincerely,

R. V. Davis, P.E.
Executive Secretary

:pc

Enclosures

VIRGINIA STATE WATER CONTROL BOARD

SECTION 106 (FEDERAL) PROGRAM GRANTS

| Fiscal Year | Federal Award | State Appropriations | Total Budget | Total DCG* Cost | Section 106 DCG Share |
|---|---|---|---|---|---|
| 72 | $ 208,400 | $ 954,760 | $ 163,160 | $ 31,400 | $ 5,625 |
| 73 | 309,500 | 1,405,420 | 1,714,920 | 46,300 | 8,350 |
| 74 | 1,165,712 | 1,406,215 | 2,571,927 | 69,500 | 31,500 |
| 75 | 1,218,813 | 3,886,778 | 5,105,591 | 137,850 | 32,908 |
| 76 | 1,601,579 | 4,022,842 | 5,624,421 | 151,900 | 43,254 |
| 77 | 1,258,112 | 4,920,510 | 6,178,622 | 166,800 | 33,964 |
| 78 | 1,403,000 | 5,045,400 | 6,448,400 | 174,100 | 37,879 |
| 79 | 1,317,900 | 6,118,315 | 7,436,215 | 200,755 | 35,533 |
| 80** | 1,317,900 | 6,348,715 | 7,666,615 | 208,340 | 35,834 |

*Division of Construction Grants
Note: These costs do not include delegated activities presently performed by other State staff.

**Pending application

Figure 1
11/12/79

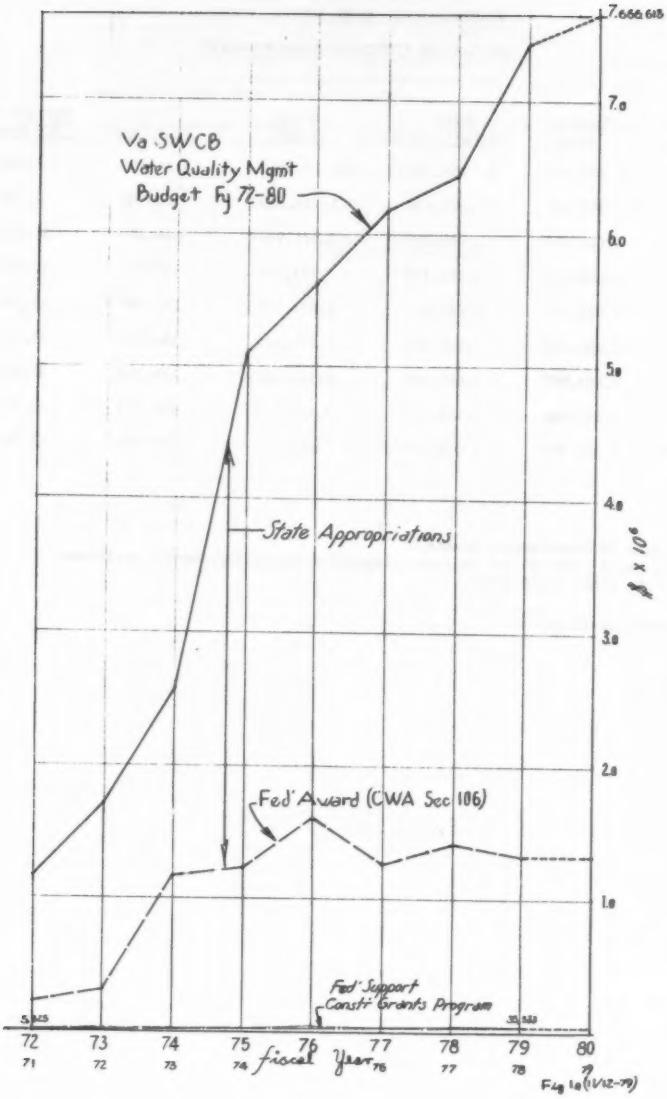


Fig 1a (1972-79)

JEF. SCHAFFER, PRESIDENT
MARY SMITH TREASURER
MARY WHEELER, CLERK

COUNCILMEN:
JOHN ALTHOUSE
JAMES DUNCAN
HOWARD DU RUSSEL
JOSEPH F. FITZGERALD
GALE KOESSE
RICHARD J. RIGG

# Village of Manchester

MANCHESTER, MICHIGAN 48158

BRUCE T. DANIELS
SUPT. OF PUBLIC WORKS
(313) 428-0390

WILLIAM F. ZSENYUK
CHIEF OF POLICE
(313) 428-8905

November 26, 1979

The Honorable Norman Mineta
Chairman, Subcommittee on Oversight and Review
B376, Rayburn House Office Building
Washington, D.C. 20515

Attn: Mr. Robert Prolman

Re: Oversight Hearings

Dear Mr. Mineta:

I request that this letter be included in the record of the recent hearings on the EPA Construction Grants Program.

I am the Village President of a rural community with a population of about 2000 people. In 1958 our community built our present secondary treatment plant. In 1974, we became involved in the EPA construction grants program in order to receive financial assistance in complying with the Federal Water Pollution Control Act and to clean up water pollution problems in our community. Since that time we have submitted reports and revised reports but nothing has been designed or built and thus no pollution problems have been solved.

Our project involves construction of an advanced waste-water treatment plant, collector sewer in presently unsewered areas, and combined sewer separation. EPA regulations have changed significantly since we became involved in this program. I understand that PRM 79-7, issued March 9, 1979 concerns the need for further review and evaluation of projects requiring advanced treatment, such as ours, and has significantly delayed our project for the past eight months. Prior to that PRM 77-8 and 78-9, which concern collector sewer eligibility,

delayed the project. At the time we became involved, combined sewer overflow control did not have to be justified and the costs were more eligible for grants. FG-61 and PRM 77-4 issued by EPA in December 1975 and December 1976 placed additional burdens on us.

In summary, we became involved in the EPA Construction Grants program over five years ago but to date we have not received approval of our Step 1 facilities plan due to changing federal regulations. Combined sewer overflows continue to discharge raw sewage to the river. During wet weather our treatment plant violates its interim NPDES effluent limitations. Residents in unsewered areas of the Village continue to make-do with inadequate onsite systems. Last fall one of our major sewage interceptor sewers failed and had to be replaced with entirely local funds.

We would appreciate any assistance which your subcommittee can give us in streamlining the EPA Construction Grants Program and in facilitating the processing of our project.

Very truly yours,

Jeffrey Schaffer
Village President

cc: McNamee, Porter and Seeley
Mr. Richard Hinshon, DNR